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Parisian Household Taste.

THE household taste displayed in Parisian homes, whatever may be its demerits, is free at least from that assumption of "correctness" that is so often, too often, to be met with in England and in America. A Parisian art-expert is in every way a much more tolerant, if not, a more adroit person than a London professional art-critic, and does not so determinedly appear to pin his faith on any special period of art, although just now the rage for Louis XV. and Louis XVI. furniture and surroundings seems rather to monopolise the antiquarian affections, and mediævalism is sadly at a discount.

In no city of the world, we may safely affirm, are there to be seen so many perfectly decorated apartments or so large a number of hideously adorned households. In a city where every individual believes in his or her ability to embellish, the result, in the majority of cases, must, as a matter of course, lead to the utter absence of beauty, and with an enormous branch of industry devoted to the production of ornamental objects suited to the taste of the multitude, and treacherously designed, we believe, to attract the uncultivated, it is not difficult to form a perfectly correct opinion of the ugliness that surrounds the mass of people who reside side by side, and above and below each other, in the miles and miles of six-storied houses that now exist, and that are rising rapidly in every quarter of Paris.

Haussmann was not fortunate in the selection of his architect, but since the war there has been scarcely any repetition of the characterless architecture of the Second Empire, and the builders just now are so active that ere long the new art spirit and the agreeable variety of design that one meets with in all directions, will neutralise the monotony of the flat shadowless surfaces of such streets as the Rue du Quatre Septembre and the Boulevard Sebastopol.

The pretentious houses that are rapidly springing up in the neighbourhood of the beautiful Parc Monceaux will satisfy all those who are willing to limit their architectural tastes within the period of recent centuries, and forego entirely all idea of thirteenth-century art and its beautiful propriety and simplicity. Indeed, the most perfect specimen of a magnificent comfortable-looking house that has just been erected for the Dowager Baroness James de Rothschild in the Rue du Faubourg St. Honoré, is, in style and every detail, a profound reproduction of the best period of Louis XVI., a style that so completely harmonises with so much of Paris of the past, that we are constrained to admit the wisdom and good taste of the architects who persevere in their loyalty to this typical French period.

Fashion, that ever-varying coalition, is unanimous only when change is proposed, but fashion, mysteriously as it operates in exercising its hideously-concealed methods on different degrees of civilisation, is in Paris profoundly conservative, compared to what is vulgarly called "fashion" in other countries, and in Paris at least there exist certain tenets connected with taste, which not to hold is simply to be altogether uninformed.

Artistic precedents can be compared in Paris, and correct principles discussed, with greater clearness than in any other city of the world; long-respected and well-understood authority is here most reverently looked up to; and the civilisation of taste in each succeeding age acknowledges the perfection of the oldest known plastic art, and the unerring principles that regulate the harmony and contrast of colour.

Commercially, the French must have been enormous gainers by the confidence they have secured throughout the world in their ability to be leaders of taste and fashion; and if it could be in any way shown satisfactorily that taste and fashion were ever happily associated, the French might have substantial reasons for pride in the influence they have exercised. But time will probably show in the main, as it has already done in detail, that France is not pre-eminent in all things that conduce to our comfort or well-being, and to their credit, be it said, they do not themselves take too kindly to many an enriching article that they send abroad as profitable objects for exchange; to give them all due praise they look very suspiciously on many of their own products, and the well-informed purchaser or collector, be he a *chiffonier* or *savant*, entertains a holy horror, for his own use, of objects in galvanoplastic or of any modern reproduction.

The truth is that the French, and Parisians particularly, in bygone days have taken more trouble than other nations to acquire a knowledge of things relating to the science of how to live easily if not well; but the professors of this comfortable art have not sufficiently acknowledged the great principle involved in the results of persistent inquiry, and their movement, therefore, is probably retrograde, they admitting themselves that their great art of cookery has undoubtedly declined, and that the exquisite taste that the world has long given them credit for may, however slowly,—and the more slowly the more surely,—have taken root elsewhere, to blossom some day into order and symmetry, to ennoble and enrich some happier and less self-confident nation.

In all their old traditions of taste, in those that are oldest the more certain are we to find beautiful arrangements of form and colour; so beautiful as to completely baffle antiquaries to trace their origin; not a peasant's cap or handkerchief but is either beautiful or characteristic; not a home-made stuff, grey or orange, purple or blue, that does not admirably set off the well-designed old ornaments that serve as useful fastenings, or as emblems of faith and devotion; and whenever we see, as we do frequently in Paris, the peasant-servant in her village costume, the household is adorned at least with one evidence of taste, one recollection of the past, that is likely to linger on for a generation or two.

In certain household arrangements, it is almost impossible to dream of a more advanced taste, or more complete comfort, than is to be met with in Paris in a well-arranged Parisian kitchen; for instance, in all that perfection of utensils, which, goodness knows, are sufficiently varied, there surely can be nothing left to desire. The perfect beauty of cleanliness and usefulness is here seen in all its splendour, and scarcely could the *culina* of Pompeii and Herculaneum exceed in beauty a modern French kitchen; but in the design of a magnificoo's kitchen of the present day, there seems yet room for convenience and beauty associated with the means for "washing up," and we have not seen, although there may exist, a perfect receptacle for the refuse of the cookery, and harmless, in fact sanitary, as pulverised charcoal may be, it has a way, without the utmost care, of projecting itself to a dangerous distance from its basket; in fact, the old coal-scuttle difficulty comes up here also.

Absolute perfection appears arrived at in the management of their well-waxed oak floors, although perhaps the Belgian practice of painting the boards involves much less trouble, and admits of the English and Dutch indulgence in the habit of scouring or damping; but both in Paris and Brussels the clean floors, partially carpeted or covered with rugs and Indian matting, secure to us the utmost amount of comfort with the smallest quantity of accumulated dust and dirt; but both France and Belgium,—indeed, all Continental countries,—make much more and much better use of the hairy skins of wild animals than we do in England, some self-indulgers covering their whole bedrooms with a carpet composed of various coloured skins, sewn together, and forming geometrical patterns and borders.

It is curious to remark that, at an epoch when silver abounds, silver-plate is disappearing. Day by day, those great houses that were formerly proud of their side-board adornments, are rapidly diminishing; fine services of plate are rare in France, and the few families that still possess an *argentier*,—specially charged with the care of the family silver,—may be easily counted. It is not here as it is in England, where there exist showy and sumptuous side-boards, heavily laden with tankards and old silver of Queen Anne's time, and of the reigns of the Georges, pieces, if sometimes a little massive, still always characteristic; nor have the French, like ourselves, great regimental services of plate. The use of silver is a luxury to be imported into France, where among the French, essentially a people fond of outward display, electro-plate has taken the place of solid silver. Indeed, we may say of our neighbours that, to appear without being (*paraître sans être*) is their motto.

With all the absurd confidence of the Parisian

in their superiority to other nations in the matter of taste, and the innocently-blind belief that the world has shown, in following their teaching, there must exist in the minds of many well-informed individuals, to say the least, a lurking belief that they may yet have something to acquire.

Must not the expectant princes blush at the sight of their own effigies as they rush through the picture-galleries at Versailles, and hurry away almost guiltily, as they endeavour not to see the horrors exhibited at the new manufactory at Sèvres? Must not those Frenchmen who know other countries well, and who so often show the highest degree of intelligence, smile when they hear their friends, on their return from abroad, speak as though Paris alone could satisfy the civilised mind? Are French people, indeed, so vain and weak as we are told, as to suppose that they alone know how to dress themselves, their wives, or their children? Why, regarding that subject from the beginning, and from the proper point of view, they have positively everything to learn in relation to the true methods of making themselves more attractive; for now that the merest tyro in theatrical matters is acquainted with the miserably meretricious arts of the stage, its elaborated laws and uses, with its legitimate enrichments, we must no longer allow ourselves to be beguiled into admiration for a figure obliged to fit a machine-made pair of stays, or a portion of a foot pressed out of shape and into a badly-copied, machine-made again, shoe grossly imitating a ridiculous *bottine* of the period of Louis XV.

To that very numerous class of people who are pleased with the palatial, or the imitation palatial, style of household surrounding, Paris, of course, is the field that supplies the largest crop of splendours. On any day one may choose one can see and purchase superb Eastern and Venetian hangings and draperies, Gobelins, Brussels, Beauvais, Aubusson, and other tapestries, services of Sèvres, Dresden, Delft, Grès de Flandre, Moorish tiles, Murano and Bohemian glass, Urbino ware, Etruscan vases, Roman marbles, painted glass, stamped leather, Smyrna carpets, lacquered cabinets, Indian, African, Spanish, Italian, and Persian arms, coffers, Japanese and Chinese work, engravings, etchings, rare books and pictures of every imaginable school.

All these fine things may be easily obtained any day in Paris, and houses and homes are now springing up in all quarters of the world that demand such questionable additions to happiness. The Parisian *boursier* especially seems to covet the most magnificent and gorgeous paraphernalia to complete his domestic bliss. He appears to consider that no luxury at home can be too elaborate to compensate him for the noisy hour or two passed in the course of the day in the midst of that veritable Pandemonium in the Rue Vivienne. But the household taste of the famous *boursiers* of Paris, the historical names that go back to the remote period of the early part of the present century, passing carelessly over two or three thousand less profitable years, becomes embarrassing to quarrel with; the traditionary treasures that most of these gifted people possess, and the expensive comfort that fifty or sixty years of monstrously accumulating wealth, and other exceptional advantages, have secured to all of them the wherewithal to make their homes a kind of domestic South Kensington Museum, only that here the arrangements are generally a little more systematic, leaving, however, sufficient to complain of, to suggest the wonderment on the part of more humble but still orderly people, that the fortunate possessors of so much splendid material can so far neglect that immense aid to happiness, a place for everything, and everything in its place.

That some household arrangements in Paris,—always, however, of the gorgeous description,—approach as nearly to perfection as can be expected or desired, it is simply fair to admit; but in such houses or apartments the owners have freely availed themselves of comforts and modes of decoration having no special or exclusive origin in the minds of Frenchmen, and, indeed, wherever modern French art takes a conspicuous place in the decoration and adornment of the rooms, the taste is invariably furthest from correct. Whenever Oriental and Italian art predominates; when, as in some shops, chocolate or gloves form the chief objects of decoration; when eating and drinking are concerned, or washing and ironing, the taste displayed is fully up to a highly advanced but not yet perfect standard. Those who know what is right, and whose taste is correct, and who are fortunately already supplied with ample material, and are so well surrounded with long-cherished objects of household beauty, have very little to do with the modern dealers and decorators, who, indeed, seek a means of living in another direction, and much prefer the less fastidious and more profuse novice in the art of getting up antique town and country ancestral residences.

An impression exists, which is not altogether without foundation, that the acquisition of quickly-realised wealth, or liberty to do as one pleases, leads in many cases to a speedy visit to Paris. Paris has, irreverently, been called the desired heaven of a whole nation of good people, and certainly wealthy Orientals and substantial Westerns have done their worst to establish a marked character to many a Parisian feature, and it has been said, with some probability of truth, that France will not return to the true paths of slow but effectual artistic progress until America and Russia either make for themselves the monstrosities they covet and secure, or, when they in happier times have found out that in the tinsel they have purchased they have made a bad exchange for their glittering but genuine gold.

While there is thus much to be said against the ordinary means adopted by Parisians to decorate their houses, they, more than any other city, make a greater use of floral ornamentation, both inside and outside their homes; flowers and ornamental plants are, without doubt, amongst the products and objects which give luxury its chief resources, and life some of its most cherished enjoyments.

Household taste, dress, decoration, and finery, generally regarded from a Parisian point of view, are questions about which they have evidently made up their minds a great deal too early in their playful history, to secure the right they assume to dictate to the world; to niggers, we do not wish to speak disrespectfully of coloured gentlemen, but to uninformed dark people, the teaching of the Parisian is peculiarly welcome, and the avidity with which the darkest nation in the world assimilates with the Parisians in all their ways and manners, is, when we consider the advanced theories that exist, or the foolish prejudices that have long existed, in connexion with the African races, not altogether flattering to the descendant of the Gaul.

Like all other showy people, the French overdo immensely their arrangement of hanging curtains, not only in their bedrooms, but in all their other apartments; and in Paris this fault is carried so far, and to so great an extent, as to leave no excuse for such mistaken luxury than that of affording for the manufacture of such gear, and for upholsterers, an extravagant exercise of their expensive industry.

Within the last few years the manufacturers of fringes for upholsterer's work have succeeded in admirably imitating the beautiful hand-made trimmings of the sixteenth and seventeenth centuries, but, within the last year, this branch of trade has been so overdone, that already those who are even slightly fastidious must shrink from the sight of so much vulgarised finery, and the well-informed know that fringe as a decoration is but the unravelled edge of the warp more or less twisted and knotted, and that the woof sides of a rug overhanging should never be abused by the addition of a fringe.

The workmen in Paris no longer possess that *esprit de corps* that existed before the abolition of the guilds of various trades; showy work brings a more immediate return than the refined slowly-produced work of older days, and it is naturally a great deal easier to find employment under masters partly instructed, who sell to the multitude even less informed, than to find a market for elaborated well-considered work, that even the most conscientious tradesman, with the best possible clients, finds it hard to dispose of. We are all in the present day too easily contented with objects that look substantial, and are so much cheaper than those which we are told are "the best," but so much more costly.

If the number of connoisseurs is so limited, it evidently arises from the degeneracy operated on our minds by the sight of the numerous deformed and hideous objects that everywhere surround us; a signal service would be rendered to the world were it, for ever, to be rid of most of these so-called artistic decorations, disgraceful lares, horrible penates, which we ought at once to make up our mind to put away, for their continual presence will inevitably end by entirely extinguishing in us the sentiment of the beautiful, which it ought to be our constant duty to draw from our museums to introduce into daily life.

Modern French furniture is of desperate poverty. For more than fifty years past bad taste has piled up in our neighbours' apartments, beds, arm-chairs, tables, *armoires*, and *secrétaires* of common and incommodious forms, which pride themselves on surpassing in grace and perfection antique furniture; and so true is this that every rich person who dreams of luxury is obliged to return to the eighteenth-century productions, or have them severely imitated. This pretended progress, which short-sighted optimists persist in seeing in every direction, is, in reality, but a decadence. The present generation has been able to invent nothing. All the models go back to the time of our grandfathers. The present epoch, indeed, considered from this point of view, is really inferior to all those that have preceded it. They know how to repair intelligently the marvels of the past, but we create nothing new, nothing original. Their precious objects are but servile imitations of the models of preceding centuries. Their time-pieces, bronzes, tables, furniture, cabinets, and coffers are exactly traced from those produced in England and in France in the seventeenth and eighteenth centuries. One will be told that the cleverest artists have given up the idea of seeking a new ornamentation. They prefer to imitate these useless beauties, and have no other ambition than that of copying them faithfully.

Still, it may be said Paris artists and Paris workmen are conscientiously laborious and painstaking. "It is certain that there is in France,—and especially in Paris,—a large body of men given to skilled labours of various kinds in art and science, who are less dependent on material comforts, luxuries, and the satisfaction of social position than the same class among us,—men whose hearts are in their work, and who are content with its daily pursuit as the chief enjoyment of life, if it will but give them a moderate sustenance."*

HOW THE PAINTERS TREAT ARCHITECTURE.

A CONSIDERABLE proportion of the pictures that are painted include a representation of buildings or architectural detail in the nature of accessories or background. It may be worth while to take some notes as to the manner in which architecture is treated by painters when thus introduced as an accessory of pictorial effect.

Painters are usually credited with having a quicker eye than others for what is picturesque, as well as a habit of minute observation of the facts of various objects; and that they may claim this superiority of observing power in a general way is unquestionable. Yet we sometimes find that even very able artists seem curiously indifferent in their representations of objects which do not claim the first attention in their works. Whether this is so in regard to all classes of objects we do not here undertake to say. Perhaps the florist, the naturalist, the upholsterer even, might all have their particular charge against the painters for neglect of truth in detail. It would seem not improbable, for it is certain that the architect may pick a good many holes in their representations of architecture, while it is not very often that they offer him a new suggestion, whether practical or unpractical. We remember in last year's Academy such a student of Greek art as Mr. Poynter placing late Greek details, in very questionable combination, as the background to his early mythical scene of Atalanta's race; and we have seen a large drawing by so generally accurate an antiquary as Mr. Cattermole, in which a group of armoured and helmeted Mediæval warriors stood near a stone staircase of which the balustrade terminated with the pedestal and round ball of the Jacobean era, such as could not have been in existence till long after the figures had been mouldering beneath the earth: so that a little observation on the subject is hardly superfluous.

In this year's Academy one of the first paintings we come to is one in which the whole background or setting of the scene consists of the interior of a Mediæval cathedral; the "Sanctuary," namely, of Mr. Eyre Crowe, who is a painstaking and accurate artist in such matters generally. We remember the realism with which

* "Edinburgh Review," vol. cclxxiv., p. 227.

he painted a piece of a London street in his clever little work called "Brothers of the Brush." But his cathedral seems hardly to be painted in a kindred spirit. He has made, in the first place, the extraordinary oversight, which artists who paint Mediæval subjects continually and most inexplicably make, of forgetting that at the period which he represents, the cathedrals were not old buildings, but new ones. He gives us the figures in their Mediæval costume, and yet he paints the cathedral (in a late style of Gothic, too) as it would look in the present day, the joints chipped and opening, the stone worn, the brass in the floor with all its lustre gone. No doubt cathedrals may be said to be more picturesque under an appearance of age; but painters seem persistently to forget that they ever were or could have been new. This oversight Mr. Crowe shares with nearly all his brethren, though he is just one of those painters whom we might have expected to be more precise in such a matter. But there is another still more singular error in the picture. The piers and the vault, the architecture generally, are of Late Gothic type, but in this late architecture we see in the background windows of Early Geometrical tracery inserted. It is needless to remark that early windows could not be found inserted in a building of a late style, and the combination appears absolutely absurd to those who are accustomed to study buildings.

In Mr. Dicksee's picture called "Harmony" we see that, although the work is evidently intended to represent a past period, the organ-case is a production of the present day. Its details are, indeed, quite out of keeping, for the upper part, with the battlemented finish, belongs to quite a different style from the shafts and brackets adjoining the key-board; but these latter portions are like no real Mediæval work, but are obviously taken from the patterns of a modern Mediæval furniture magazine. This, to those whose archæological perceptions are lively, just takes away the reality of the scene, and gives an idea that it is all a masquerade, and that the two young people have merely dressed themselves up to play at Mediævalism. Mr. Gow's picture of the tumult in the House of Commons shows, on the other hand, an unusual attention to truthfulness in these matters; the room is in its main features a late Tudor or Elizabethan one, and the main portion (the high wainscot and the window, &c.) is represented with just the proper degree of rustiness for the time which it would have been in existence; while the canopy of the Speaker's chair, in the centre of the picture, is a piece of new work of the then novel Renaissance taste. The correctness of the picture in these particulars certainly aids in giving the scene that effect of reality for which it has been praised. Not far from this, a small painting by Mr. W. Bright Morris, of the "Courtyard of an Old Moorish House at Granada," exhibits a thorough understanding of architectural detail and construction; in the half-indicated line marking the spandrels of the arches we see the evidence that the arches are merely ornamental features under a lintel construction; the drawing of the ends of the roof tiles on the right is also practically correct; the whole work shows that the painter has brought some knowledge of the practical basis of architecture, or at least very close observation of constructional appearances to his aid, as well as a perception of the mere picturesque result. This, it may be said, is distinctively an architectural picture; but there are others which are more pronouncedly so, such as the cathedral interior under the title of "His Last Vespers," by Mr. Logsdail, in which we do not find the same truthfulness of observation, though there is very minute painting of detail in a rather hard "architectural draughtsman" style. This artist's other work, "the South Door of Lincoln," is more true in feeling, though here the texture and tone of the stone-work seems artificial; nor can we see any reason why these two works should claim a place among the pictures proper, rather than in the room specially devoted to architectural drawing, unless on the plea that they are executed in oil; but that seems rather putting accidents before essentials in the grouping of pictures.

To return to our look round in the order of numbers, we notice an admirably studied representation of Renaissance detail in the elaborate chimney-piece in Mr. Marcus Stone's picture, "Sacrifice"; and in Mr. Long's large work, the reproduction of Egyptian architecture, so far as we can judge from existing remains and representations, seems as perfect as study and labour can make it: every detail is carefully finished, and with an aim at truthfulness both of form and colour. In a spirit somewhat akin to this revival of Egyptian architecture may be reckoned Mr. Tadema's revivals of Roman detail, which, however, in "The Four Seasons," leave something open to criticism. The mosaic ornament in "Summer" is admirable, and is noticeable for its studied irregularity in the lines and in the jointing and putting together of the mosaic, showing that the painter had clearly before him the nature of the process, and its precise results. But the base of the column, which fills up so much of the space in "Winter," is not so satisfactory: the curves are carelessly drawn, and the upper and lower torus of the base are out of proportion to one another, and the fillet which forms the finish of the granite shaft just above the base is too large for the scale of the base-mouldings. All these niceties would have been worth considering, where the feature alluded to is so prominent in the composition.

Mr. Hodgson's "Commercial Activity in the East" is very deficient in the representation of texture in the wood and brick work; the colour is, we have no doubt, a correct representation of what the painter saw, but for texture the buildings might be all the same material artificially tinted. This is a serious defect when the whole background or setting of the figures is an architectural one; it gives a vagueness and woolliness of effect to the whole. We had to allude to the same sort of short-coming in the case of Mr. Crowe's picture of the "Red-maid's School at Bristol" last year, in which the whole of the canvas behind the figures was filled up by the outer wall of the building, and yet hardly a feature of texture, or surface, or jointing was shown; only the colour was given. In Mr. Donaldson's picture of the presentation of the fish on the consecration of the first Westminster Abbey, we see due recognition of the architecture of the period, so far as anything is known of it, in the representation, on the porch in the distance, of the rude Saxon capital with its horizontal striations, as it may still be seen existing in Barnack Church and elsewhere; though some of the other details, so far as we can make them out, seem a little arbitrary, and the perspective of the receding arches in the doorway is surely a little faulty. In Mr. Armitage's large picture of the Saxon Baron "manumitting" his slaves, this rude form of capital peculiar to Saxon England is not recognised, and the capitals of the shafts in the doorway are of the simplest form of the Norman (as it is usually considered) capital; whether this is oversight, or whether the painter has settled to his own satisfaction the rather vexed question as to the date of origin of this form of capital, and has decided that it is pre-Norman, we cannot, of course, say. The painting, however, gives the impression that the architectural portions of it have been executed with thought, and an aim at correctness; the small triangular-headed windows are characteristic; but we must confess that the overhanging roof on the right, with its struts springing from small corbels in the wall, looks exceedingly like a bit of modern Gothic farmstead building.

By the way, the large gallery reminds us how awkward it is to see a screen set across the angles of the room to cut off the corner and enable the pictures in the angles of the room to be hung obliquely to better advantage. This is always a desideratum in an exhibition-room. No picture should be put actually in a corner; but this being so, surely the rooms should be planned so from the first, and not left to be manipulated afterwards in a temporary manner. It would be easy to utilise the space at the intersections of rooms for ventilating shafts, &c. All the rooms at Burlington House ought to have the corners canted; if we remember rightly, however, none of them are so arranged except the large room, and very awkward it is to get to see the pictures in the angles, especially when the rooms are full,—when there is a perpetual block at these points,—all for want of arranging the rooms in a common-sense manner to begin with.

This, however, is a digression, and we proceed to note that Mr. Orchardson does very little justice to the fine effect of the interior of an old wainscoted room by his sloppy kind of execution, ignoring both texture and local colour for a general vague effect. The buildings in the background of Mr. Ward's "William III. at Windsor," are also very sketchy, which would pass better if the perspective in some points (the buttresses, for instance) were not somewhat questionable. Then we come to Mr. Leighton's "Music Lesson," where there is architectural finish enough, a brilliant and careful representation of marble and other surfaces and tones; but we confess to have been puzzled, ever since seeing the work, with the object on the right, which appears like one drum of a clustered marble pier standing there unfinished, and which is certainly not very beautiful in itself. Mr. Crowe is certainly not fortunate in his architecture in the present exhibition; for in the small picture, "Reduced Three per Cents," in which a portion of the Bank of England forms the background, the fluted column is really not drawn or modelled at all, and there is no indication to what feature the other flutings seen above the iron grille belong; they appear as if they were an added thickness to the same column. The architecture in this case comes close up to the spectator, as there is no distance in the drawing; and its details should really have been treated with more care. In his other picture, "A Bridal Procession at St. Maclow, Rouen," the details and texture of the interior architecture are given with much more care and finish. We presume the painter is representing a fact in drawing the square base and capital, in the column flanking the door, lozenge-wise, with their angles towards the wall-plane; it is an unusual arrangement, certainly. Miss Kate Thompson reads some of her brother artists a good lesson in the painting of architecture, in her small view of the "Entrance to the Hall of Las dos Hermanas," at the Alhambra: this is an admirable piece of painting of the kind, having all the precision of an architectural drawing, as to line and colour, with an artist's feeling for tone and effect.

In Mr. Wells's portrait of "The Hon. Constance Lawley," passing through a vestibule, the lower portions of two columns form the prominent adjuncts. These are very badly designed, in a way in which no architect ever drew the base of a column; the upper torus a mere beading, the lower disproportionately large. They are either painted from a very bad example, or (more probably) evolved from the inner consciousness of the painter. In Mr. Hodgson's "Relatives in Bond" the texture of the architecture is much better than in "Commercial Activity." The same artist has painted a large view of a town and harbour, in which the houses seem sadly wanting in character, and the church tower which forms the central object is one of the most wretched pieces of builder's Gothic conceivable. It may be painted from an actual example; but why select such a weak miserable-looking tower, when there are so many fine ones all over the country to paint from? In Mr. Vicat Cole's "Arundel" there is an old building on the right in the foreground which puzzles us exceedingly as to scale. It has Classic pilasters on its walls, which appear to be put in for the sake of a bit of detail, for otherwise the building looks like a barn; but what strikes us more is the proportion between these pilasters and the size of the man and horses near. If the figures are to be taken as correct, the "order" of the building must be on a scale something like that of St. Peter's. A painting which shows much more correct observation in regard to architectural detail than usual is Mr. Waller's "Home?" where the picture mainly consists of the study of a portion of an old Tudor mansion with a Jacobean entrance-door inserted. The mouldings are all drawn and modelled with a correct appreciation of their characteristic contours; the only bit that looks at all careless is the ornament round the panel containing the sun-dial, the design and style of which cannot be made out. Whether the painter has been awake to the fact that the doorway in his house must from its style be a later insertion, is not quite clear; there does not seem to be any distinction in the tone of the masonry. But this is a very good study of building; perhaps, considered in relation to pictorial effect and sentiment, the best in the Academy; or the best finished picture, let us say, for we just remember that next to it stands the late Mr. Lewis's unfinished picture of a Cairo scene, with bricks and timber, in the buildings opposite, which look absolutely real.

Mr. Wynfield's "Harvest Decorations" ought to delight the "anti-restoration" Society, showing, as it does, the interior of a church of the old type familiar in our childish days; plastered walls, wonderful nondescript capitals, and high pews with the swing doors. The style of the thing is very correctly represented, and perhaps an artist of the present day deserves some credit for independence of taste in taking such a building for the scene of operations, instead of painting modern-Gothic "shop" furniture. In

the same room is Mr. Poynter's "Fortune-teller," with a classical architectural background which compares favourably, in design and drawing, with any other in the rooms, not excepting Mr. Tadema's; the texture and reflections of marble are not, indeed, given with the latter artist's wonderful truth and apparent facility, but the drawing is better, and the painting may be said to be the only one in the rooms in which a Classic base is correctly designed, if we except Mr. Keeley Halswelle's "Non Angli, sed Angeli," where the architectural detail has been carefully and conscientiously studied, and the curves of the base-lines are carefully drawn in correct perspective, a matter in which we must confess that not a few architects are careless, let alone painters. The difficulty in regard to Mr. Halswelle's picture is to understand where such detail could be seen in the time of Pope Gregory: the Renaissance was still far off, and the original Roman architecture, on the other hand, was too far behind to have left any buildings of the style looking so fresh and new as these columns appear to be.

In Mr. Britton Rivière's "Lazarus," the architectural background is exceedingly well drawn, and has evidently been the subject of a good deal of consideration. The painter has adopted details more or less Saracenic, which is perhaps as near as one can get to an architectural local colour for an Eastern scene of undefined time and place; it is, at all events, quite in keeping with the subject, and shows some originality in the application of the ornament. In Mr. Goodall's "Water-carriers," the row of buildings in the middle distance is probably taken more or less from some actual Eastern village or town, but the character of the architecture is but feebly rendered, and gives too much the impression of a sort of conventional Sunday picture-book scene. The old fountain with the three lions' heads in Mr. Topham's Roman scene called "Idlers" is good, its general character being very well given, though here we should have liked to see a little more evidence that the painter had considered the precise meaning of the shadows and touches which he knows how to put in so effectively. He contrives to make it look right, however, which is more than Mr. Fulleylove does, who sends a water-colour of the "Pantheon at Rome," in which the curves are not in true perspective, and the capitals of the columns are like nothing in the world; the general effect of the drawing is unquestionably pleasing, but if artists take a *bond fide* architectural subject they should really see that they understand what they are drawing. Mr. Griffiths's "Street Scene in Bombay," also among the water-colours, errs perhaps in another direction, regarded as a picture, for the architecture is almost too hard and minute, but the drawing is an exceedingly able one, and the artist in this case does understand distinctly what he means to show. Miss Thornycroft's design for an illustration of "the Parable of the Great Supper" would have been the better for more sympathetic study of the Ionic architecture which forms the background; it is correct in the main, but is very feebly designed, and the abacus is too thin, giving a very weak look to the capitals. Painters who want to draw Ionic architecture could not do better than take their inspiration from the grand fragments of the Ephesus temple now in the British Museum; a little study of such details, and an appreciation of their *scale* and spirit, would cure artists of being content with backgrounds of what may be termed "toy architecture" for their pictures. In Mr. Waterhouse's Classic interior in the "Temple of Æsculapius," the architectural details are very carefully drawn and modelled: the profiles of the mouldings on the altar, for instance, might have been furnished by an architect; the fluted wall pilasters without bases seem, however, to clash a little with the antique spirit which should pervade the whole, reminding one rather too much of Jacobean detail. In Mr. Wallis's fine picture of "The Physician," care has been bestowed on the painting of the building, and a characteristic simple form of Early Gothic capital is faithfully represented in the doorway on the right; but here, as in Mr. Crowe's "Sanctuary" picture, the mistake seems to have been made of painting the building as it would look if preserved in the present day, battered and time-defaced, while the figures belong to a long past age.

It is certainly remarkable how comparatively few painters represent architecture correctly, and we could wish that those artists who bring architectural detail conspicuously into their paintings would recognise the fact that its effect depends often on very delicate *nuances* of design, and that if introduced at all, it is worth more study than they seem to give to it.

"ICI ON PARLE FRANÇAIS."

THE Académie des Beaux-Arts are at present exhibiting the works of the Prix de Rome men, the *pensionnaires* of the Villa Medici. There appears to be but one opinion, which is, indeed, this year amply supported by unhappy illustration, that, year by year, the French Académie system of rewards, whatever good may have been done by it in the past, no longer brings forth satisfactory results. Of the four pictures now on view, two only call for any special remarks. All suffer from their undisguised imitation of the lamented Regnault's admirable method of work, but these pictures have so little, indeed are so utterly without any fresh thought or older traditionary charms, that all that can be said of such productions is that their painters are still very young men, who have yet many laborious years before them, and that nothing is denied to labour if properly directed.

The ingenuity that modern French painters exercise in their endeavour to exhibit their misplaced belief in their ability to represent the naked form, has surely long since culminated, as far as decency will admit, with the works of some very recent painters. Ingres, we think, was the first Frenchman who indulged the public with the sight of an *Odalisque* at her bath, and, since then, how many undraped figures have we not seen at French exhibitions? Surely a check, or a hint at least, should be strongly suggested on this subject to our young painters, or picture exhibitions will become unfit places for any but professional men.

The architectural drawings sent home are precisely similar to the many perfectly-executed mechanical designs that all young architects seem capable of producing. Now and then some architect appears to take a pictorial view of his subject, as M. Lambert has done in his charming representation of the interior of that most perfectly decorated apartment, the Library at Sienna, and the same artist's drawing of the façade of the Communal Palace at Brescia are equally good, although more strictly architectural. The sculptors send home positively nothing worth notice, and the engravers and medallists are just as commonplace as usual.

There seems every probability, from what we hear of the resolutions that the Fine Art jury of the French section of the Exhibition have just made known, that the Parisian painters, in their desire to show the world that they are the only artists, may fall into grievous, and what may prove to be humiliating, error; for ourselves, we believe that the French pictorial display next year on the Champ de Mars will be a failure, and that it will be but poorly redeemed by the works of the jury, who, with a patriotic ambition to maintain the artistic honour of their country, have determined to send each an unlimited number of their own works, executed, of course, since 1867.

The French artists have every reason to feel nervous as to the show they are likely to make next year; but their failure will not be owing to apathy or want of interest in the subject,—a cause of failure that is very likely to be the case with countries near to them, although Belgium is certain to distinguish itself; England is likely, we fear, to be too indifferent or too well satisfied with its abundantly remunerative home admirers, to care much for the opinion of the profane vulgar or the sight-seeing crowd of pleasure-seekers.

It is now almost certain that the Great Exhibition of 1878 will be lighted by electricity. Before this year's *Salon* closed, several successful electric experiments were made in presence of the Minister of Fine Arts, and within the last few days these have been repeated. The interior of the Palais de l'Industrie has been lighted by two electric chandeliers. Every day these experiments have been repeated, in order to discover the best means of lighting the immense building. It has been calculated that at least ten thousand candles would have been necessary to give the same light as that given by the electric chandelier. The experiments apparently have been most satisfactory with the statuary, though, as regards the pictures, great doubts exist.

At the first meeting of the Société de Médecine Publique, held on the 27th ult., among several interesting papers, M. Trelat, the director of the École d'Architecture, pointed out how defective were the greater part of the scholastic establishments, with regard to the way in which they were lighted. He showed that the habit of making the light come from every or any side fatigued the eyes, developed short-sightedness, &c., and that, in addition, this exclusive case of having too much light from the place whence it comes has for result that objects are lighted all round, the relief thus being destroyed, and the plastic sense destroyed with the children.

At length the new street across the Tuileries gardens, to which we have already referred, has been thrown open to public thoroughfare; heavily-laden wagons, however, are not allowed to pass through. On one side of the new street stand the ruins of the palace of the Tuileries; while on the other has been laid out with incomparable taste a beautiful garden, in which some of the best statues of the old private garden have been placed, skilfully relieved by a dark-green back-ground of foliage. Indeed, seen at the proper hour of the day, the new garden cannot fail strongly to recal to those who have crossed the Alps many a delightful memory of Italy. Placed as the new street is, in the quarter visited by all the strangers, the Rue de Tuileries will soon, beyond a doubt, become famous.

Paris.

THE FUTURE FLOODING OF THE THAMES, AND THE METROPOLITAN BOARD OF WORKS.

THE course which the Metropolitan Board of Works has taken in withdrawing the Thames Prevention of Floods Bill has caused the united committees, belonging to the several vestries who opposed the Bill, to adopt a certain line of proceeding with the view of freeing themselves from being held liable for the consequences of any future inundations. During an interview which a deputation from the committees had with the Home Secretary last week, they stated that although the Metropolitan Board had abandoned the Bill, the riparian parishes were willing to assist in carrying out an equitable scheme; and that as to any future floodings, the Central Board must be held responsible; on which the Home Secretary observed that both himself and the Government were anxious to assist the deputation, but that if Sir James Hogg, the chairman of the Metropolitan Board, availed himself, as he threatened to do, of the forms of the House, the session was too far advanced for even the Government to secure legislation, but that notwithstanding they would do what they could by influence. It was stated at the meeting of the Lambeth Vestry last week that it had come to the knowledge of the committee that it was in contemplation by a section of the Metropolitan Board to avail themselves of the first overflow of the Thames, in any parish, to get the Board to apply for a mandamus in the Court of Queen's Bench, to compel that particular parish to do the necessary work at its own expense, and that a resolution had been agreed to by the riparian representatives that the selected parish for prosecution should be assisted by the others. Notwithstanding the course which the majority of the Metropolitan Board have taken on this subject, there are other members who hold they ought to adopt some further steps to prevent future flooding disasters, and with this view Mr. Dresser Rogers proposed the following resolution at a late meeting of the Board:—"That the engineer be instructed to report to the Board the places on the River Thames, within the Metropolis, where inundations are likely to occur from high tides, and also to supply the Board with an estimate of the expense requisite to make such alterations as will prevent future damage to property from overflow of water, and that the question be referred to the Works and General Purposes Committee to consider and report." Mr. Rogers said his object in proposing the resolution was to show the public that the Board desired to prevent inundations, about which many persons appeared to think they were indifferent. The Board, however, considered the object of the resolution unnecessary, and rejected it by a large majority

Wood-Working Machinery.—We are informed that the only gold prize medal for wood-working machinery at the South African Intercolonial and International Exhibition at Cape Town, has been awarded to Messrs. F. W. Reynolds & Co., of Southwark.

ART AT TROY AND MYCENÆ:

AS MATTER OF POETRY AND MATTER OF FACT.

It appears too certain that the interest which has been excited in Dr. Schliemann's discoveries at Hissarlik will have to dwell for an indefinite time longer on what he has told and is presently about to tell us. We must make the best of the knowledge which has been already secured, and of which we are soon to be more fully in possession, as to walls, gates, towers, foundations, and other antiquities of that ancient city, to the prosperity and ruin of which there can be no reasonable doubt that the world is indebted for "the tale of Troy divine." The study of ancient history in Asia Minor has to be postponed while the country is disturbed by its modern history in the process of making. Fugitives from the conscription are seeking refuge in Mount Ida, and make the peace of a neighbourhood far too precarious for an archæologist; especially for one whose explorations have had results so intelligible to a brigand as a treasure of golden utensils and ornaments. So the palace of the lords of Troy and the state of the arts at their court must still be chiefly represented to us by the descriptions of Homer; these are very general in their terms at best,—and, even so, they are subject to a double deduction. Allowance has to be made in the first place for the liability of a poet to more or less consciously transfer refinements of his own age to a far earlier and ruder date; and then for a tendency of pure poetic imagination to add developments of what may be some day, but are not, even at his own date, more than art in rudiments. Homeric poetry is imbued with a spirit of that universal enhancement of all expressive effect which, as attempted by the rash ambition of the incompetent, lapses into the offensiveness of gross exaggeration, but when so gloriously successful, is glorified as idealization. To such a height does Homer press this tendency that some strength of pinion is demanded of those who would even watch and wonder at his eagle-flight; the weaker lose heart prematurely and accuse the poet as readily as the clumsy criticism of Johnson charged the "serious swelling" of Shakspeare with degenerating into "bombast." The worthier become insensibly acclimatised and breathe with delight in the rarified air of the regions which poetic genius demands for the support of its inventions. If Homer requires a flood in the plain of Troy to wash away the evidence of his walls and trenches in defence of the Greek position, he does not scruple,—and they are prosaic, indeed, who cavil at the liberty,—to reverse the watershed of Mount Ida, and turn the Granicus and the Æsepus into the Hellespont for the nonce; he deals with the stream of time quite as unceremoniously,—antedates graces of arts which are appropriate to a far later period, and not only exhausts the resources of his own time to fill out his picture,—but, as in the description of the shield of Achilles, makes a draught by anticipation upon all the perfections that art was ever to achieve to the termination of its Hellenic career.

Temptations to enhance splendour and refinement did not present themselves to the poet in the "Iliad," and invite him to such liberality as he indulges in describing the palaces of Alcinous and Menelaus in the "Odyssey"; but opportunity for such indulgence was by no means precluded altogether.

The buildings which Homer specifies on the Acropolis of Troy,—that is, within the precinct of the distinctly fortified citadel,—are the temple of Athene, which contained her seated statue, and the palaces of Priam and his sons. So at Athens we find the chief sanctities of the city on the Acropolis with the house of Erechtheus, the mythical King of Athens; the instinct of monarchical rule in early ages,—and it is not obsolete in all countries yet,—was not more constantly to lean on the security of a central fortress, than to make the assurance of a citadel doubly sure by as close association as possible with objects and sites of religious veneration. It would be of the highest historical interest to know whether a complete exploration of the Acropolis of Mycenæ would bring to light the traces of any properly sacred structure as well as of a royal dwelling and royal tomb. The presence or the utter absence of any such traces,—if the absence could be made out as certainly not due to demolition,—would be equally significant,—though contrasted in significance.

When Hector coming in from the field and entering the city by the Scæan gates, approaches "the very beautiful house of Priam," what we first learn is that it was furnished with smoothed or polished porticos,—*aithousai*,—as if some at least were external. Within, upon one side of a court (*aule*), there were fifty sleeping-chambers of dressed stone contiguous to each other, in occupation of the married sons of Priam; apart and opposite there were chambers similarly constructed and contiguous, for the residence of his married daughters and their husbands; these, however, are only twelve in number, and symmetry limps accordingly. The latter chambers are qualified as roofed (*tegeoi*), or in some obscure relation to a roof, which has never been explained in a way to account for the difference. It has been suggested that by striking out two lines from the text as spurious, these chambers would be left in occupation of unmarried daughters; but it is just at the entrance that Hector meets his mother Hecuba, taking in the most beautiful of all her daughters, Laodice,—and Laodice is married to Helicaon, the son of Antenor (3. 122).

The two most important sons of Priam,—Hector and Paris,—have dwellings,—palaces, apart, but in proximity to their father's, and therefore also on the Acropolis; that of Paris is said to consist of "Thalamus, Doma, and Aule," that is, of chambers for sleeping or retirement of the larger apartment for common assembly, or for meals, the dining-hall, and the open forecourt,—divisions with which we become acquainted very definitely in the descriptions of the palace of Ulysses in the "Odyssey." It is quite in harmony with the general habits and disposition of Paris that he should be studious of the beauty of his dwelling. The lover of Helen, who is seldom mentioned without an epithet referring to his personal beauty, makes his first appearance in the poem in the forefront of the battle, gay with a leopard-skin about his shoulders, and now when Hector finds him at home it is in a mind that shows him by no means alert to respond to Helen's very pointed suggestion that his right place is with the fighters, before he has had time to burnish his shield and cuirass, and arms one after the other, that when he does go, he may make an appearance worthy of,—

> "Paris Alexander, the consort of fair-hair'd Helen."

It is in accordance with these tendencies that he should have bestowed his own personal care on the design of the beautiful palace which he built with the aid of the best artificers that Troy could then supply,—

> "But Hector went on forthwith to the palace of Alexander,
> The beautiful; this he had builded himself with the men who at that time
> Of all in the realms of Troy were workmen the most skilful."

Paris so employed reminds us of an Italian prince of the Revival, fastidiously exacting of most perfect finish and accurate design, whether in a jewel, an armour, or the plan or elevation of a villa, and qualified to criticise and control the skilled in every art. And there is something particularly modern in the phrase, "the men who were the best artists of the time"; it marks a strong sense, for the poet at least, not merely of the differences in ordinary skill between one man and another, but how every time has its few men who stand forth far beyond the rest, and how thus one time, one epoch, falls into comparison with others in a series, as better or worse, by the standard of the genius of individuals.

Other suggestions occur of the familiarity of the poet with the atmosphere of an age of art. How distinctly, in the conclusion of the description of the baldric of Heracles, does he express the feelings with which an artist of due enthusiasm, of any age, regards a work to the execution of which he has bent the whole power of his faculties. It was formed of gold, inwrought with marvellous workmanship; the subjects are described in two lines, which very plainly indicate two rows of contrasted subjects, and precisely such as we find contrasted on some of the earliest preserved Greek works of art, on bands one above and one within the other:—

> "Bears were thereon, and fierce wild boars, and glaring lions;
> Conflicts there were, and fights and slaughter, and deeds homicidal."

Museums supply abundant illustrations, on pottery and bronze, of a row of confronting wild animals on one hand, and on another a row of human conflicts. The work, it is said, was such that the artist by whom it was wrought would not easily in another add anything to his invention; he had, in fact, exhausted his resources,—thrown all himself into the work.

When Homer thinks it worth while to specify the chair of Penelope, inlaid around with ivory and silver, as a work of Icmalius, we seem to be aware of the echo of an age which might have its collectors, and parallel with that which is recklessly competitive for possession of a superior piece of Chippendale. At least, we apprehend the indication in germ of that same feeling which caused Greek artists,—moulders and painters of vases, and Sicilian die-sinkers,—to name no others, to sign their works. The Sicilian signed coins are late; but very early pottery is signed, and self-assertion in this quarter is the more noteworthy, because ancient literature entirely neglected to put on record the progress and the masters of the Ceramic art which reached such high perfection. The François vase at Florence,—a vase of which the associated subjects might be shown to form a whole as coherent, though far from as deeply significant, as those of the Sistine Chapel, if the world cared to listen to the exposition thereof,—the François vase which, in many respects, is perhaps the most interesting of all that have been recovered, is of very Archaic style, and inscribed in more than one place,—

> "Ergotimus made me—Cleitias painted me."

Homer, it must be said, while he shows every disposition to magnify his own art of poetry, is no less earnest in asserting,—or rather let us say, no less naturally and as matter of course takes for granted,—the dignity of excellence in all the arts. Manual skill is, with him, a direct endowment from Pallas Athene; it is by her favour that Phereclus,—descendant of a line of artists, for as much is implied in his father's name Harmonides,—was not only a shipbuilder, but, with the universality usual at some periods, could execute "dædal works of all kinds with his hands." Among the guests who, by the admission of all, may be worthily invited from afar, and entertained by princes, are not only the diviner, the leech or assuager of disorders, and the bard, but also the fashioner of spars, be the title limited to shipwrights or inclusive of all workers in wood (Odyssey, 17. 384). The social line so drawn is quite as defensible, mayhap, as any that in military states is the barrier of a caste, and defines the privileges of the *hoffähig* by more grotesque qualifications.

The constantly repeated phrase by which Homer qualifies good workmanship,—be it but of simplest carpentry,—is, "well and understandingly"; no mere manual dexterity is sufficient, unless reflection concentrated upon definite means and purposes co-operate; the skilled or trained workman is clearly in Homer's appreciation but a poor creature, unless he is competent to use his wits independently. Here we have the secret of that primary start of Greek art upon a course of development which involved an energetic progress towards highest development.

But, after we have made the most liberal deductions from the Homeric descriptions on the score of poetic invention and poetic embellishment, it comes out clearly and positively that the actual works of art with which the poet himself was familiar, whatever his date, and on which these enhancements were so lavishly superinduced, must have been different indeed in style and value from the ornamental objects, rude rather than even crude in both workmanship and design, that have been found near the virgin soil at Troy and Mycenæ. Our inferences will, indeed, touch the very verge of the adventurous if we dare confidently propound that the primæval art revealed by Dr. Schliemann displays enough of the healthy vigour of a wild stock to make probable its reception of a later graft of a truly refined strain. Yet to this length we confess that we are inclined to go.

The interval between such art as Homer may have known and that of Dr. Schliemann's collections, can scarcely be so great as that between the art of his descriptions and of his experience. A certain sympathy with natural forms, however simple, combined with a disposition to conventionalise them, represents no unpromising starting-point for unfettered development. Legend, which we are learning to listen to with more respect than formerly, however our respect is still qualified by caution, distributes a broad substratum of Pelasgianism over Greece at large and all its border countries; and Herodotus believed, and plausibly enough, that certain tribes which shared the appellation had such susceptibility of culture as to respond kindly to stimulant contact with Phœnicia, with Egypt, with Lydians, or Phrygians, and so assumed the characteristics of the historic Greeks,—the Hellenes. The historian particularly declares that the religion of these primæval occupants of

the soil was at first the simplest recognition of divine powers,—the orderers of nature, to which they only later adapted foreign names and attributes. There is much in the aspect of the antiquities of Mycenæ that carries us back to this period of naïve sincerity and simplicity; a period long, long anterior no doubt to that in which the poet was witness of the settled application of native artisans working,—"well and understandingly"—in a great variety of materials, and an equal variety of arts, but a period which at least was not cramped and overlaid by unredeemable formalism.

It is in the indication of a geographical extension, comprised under this period, that there is especial significance in Mr. Newton's palmary recognition of the relation of the forms and ornaments of Ialysus in Rhodes and Mycenæ; the relation is certified, is clenched, by agreements which are as infallible as the matched halves of a torn printed page; and we are thus enabled to mark as "founded on fact" the legend, not only of the connexion of Rhodes and Mycenæ, but their connexion at a period as early as the crude art in question requires;—early, in fact, as the legend implies, which refers it to the age of Hercules.

Besides agreement in quite peculiar forms of drinking and other vessels, and of some marvellously uncouth models of the human figure, there is an agreement in the very restricted types of ornament; one of these started from the sepia,—if not possibly the octopus,—the polypus of Homer,—perfectly recognisable, but variously conventionalised into an ornament, and sometimes almost or even quite carried away from any natural form whatever,—a mere pattern. Besides this type there is another which has caused more debate, and on this we have to vent an opinion of our own; it usually appears as an open but diminishing spiral, extended at last to a straight line. Several examples, variously modified, may be seen on the Ialysus pottery in the case at the British Museum. One example seems to betray the secret,—that the spiral is what very free-hand drawing indeed, has adopted to represent the whirls of the spire of a univalve shell. The suggestion is then obvious that the true model was the purple shell,—the exuviæ of the murex, the source of the Tyrian dye. Whether the figure will suit better the murex *trunculus* of the Tyrian shore, or the murex *brandaris* of that of the Morea (see Woodward, p. 106), it must be left to the naturalists to decide. In any case, we doubt not that the type represents a shell, albeit different opinions may interchange vertex and canal. If the shell really be that of the purple-yielding mollusk, it brings us back in conclusion, and agreeably, to an Homeric text. It is a purple web which Helen, with the serenity befitting a princess who is conscious of the privileges conferred by her divine descent, embroiders picturesquely with the disastrous conflicts that Greek and Trojan are condemned while she works through her own light life and misbehaviour. Where Helen may have laid in a stock of purple material, we may infer when we read that Paris went round by Sidon as he brought her home to Troy,—to Sidon, whence the gaudy pair did not also fail to bring chests full of robes elaborately worked and variegated, and beaming star-like (Iliad, 6. 290). Such is the indication of one main track by which the simple,—to borrow a word,—"the child-like" attempts at art which were native at Mycenæ received a stimulative impulse, and derived the types and models of ornamental combinations which are preserved to us in the pottery of the so-called Græco-Phœnician style, and doubtless were displayed more elaborately on more perishable materials.

MODERN BRIDGES.

SINCE the development of railway communication first gave an importance to bridges greater than they had hitherto possessed, but more especially within the last quarter of a century, bridge construction has undergone such thorough changes that it will well repay the trouble, in speaking on modern bridges, to shortly trace the various stages through which that branch of architecture has passed since bridges were first used in the remote past. The necessity for connecting opposite banks of rivers by permanent structures must have made itself felt very early, for our most early informants on the subject, the Greek historians, mention the erection of bridges by Semiramis, Darius, Xerxes, Pyrrhus. It is almost certain that they were known also to the ancient Egyptians, though no records respecting them are, as far as we know at present, in existence. Of course, bridges at that early stage of history must have been of the most primitive nature, and the material first employed was undoubtedly wood, for we meet with them already in the lake dwellings, and in a more perfected state among the Romans and in the Middle Ages. By simply laying down timber beams on fixed supports, an opening of at most 50 ft. was bridged over. By constructing piers, and using lateral trusses, larger distances were spanned. When the introduction of railways gradually brought about a complete revolution in the construction of bridges, iron bridges became the rule in Europe; in America, however, the abundance of wood enabled engineers to construct even the largest bridges of that material. Howe and Long succeeded, by the combination of different systems, to span openings of a width of 177, 207, and even 328 feet. Stone bridges were built somewhat later, though they were brought to a state of high perfection already by the Romans. They are, from the nature of the material employed, which offers resistance only to pressure, not to tension, all of the arched form. The Roman bridge over the Adda at Prezzo, now destroyed, was the longest known of Roman bridges; it had a span of 246 ft. The next widest, spanning the River Dee, has a width of only 200 ft. The bridges most celebrated for their architectural beauty, if not for their size and span, are those over the Thames in London, the Seine bridges in Paris, the bridges crossing the Elbe at Dresden and Prag, and the bridge over the Danube at Regensburg. Stone bridges are little adapted for railways, as the changing weights require a greater resistance to pressure and tension than it is possible to attain with the material. But it is extremely valuable in the construction of aqueducts and viaducts, which have to support a more uniform burden. Thus, irrespective of its use for the wonderful water conduits of the Romans which surround Rome for miles, stone has been employed, in modern times, for the beautiful aqueduct of Marseilles, 1,277 ft. long, the Göltzschthal viaduct in Saxony, four stories high, and the Neisse viaduct at Görlitz, 1,548 ft. long, of which the first required an outlay of 335,000*l.*, and the latter of 95,000*l.*

Iron bridges, the introduction of which belongs to the last decades, are either girder, arched, or suspension bridges, the latter being the oldest. Suspension bridges, with hempen ropes or leather straps as bearers, are of very old origin, bridges of that description having been met with in China and Thibet when those countries were first visited by Europeans. The Swiss crossed the Po in 1515 on a bridge of ropes, and the Electoral Saxon army, in 1734, threw a chain bridge over the Oder. Wire ropes were first used in America in place of chains. The largest suspension-bridges of the world are found there, examples of which are the railway bridge over the Niagara (820 ft. wide), the road bridge over the Ohio bridge at Cincinnati (984 ft. wide), and finally the largest bridge of the globe, viz., the East River railway bridge between New York and Brooklyn, now building, constructed on Röbling's system, of a width of 1,575 ft., and of such a height as to enable the largest sea-going ships to pass under it without difficulty. Suspension-bridges are extremely useful for street traffic; but their being exposed to great oscillations has prevented their application for railways, an evil which it has been endeavoured to obviate by stiffening the ropes and using links in the centre, as this has been done in the case of the foot-bridge at Frankfurt. These experiments, however, were made quite recently, and have not yet given quite satisfactory results, in consequence of the difficulty of making exact calculations.

Arched bridges of iron are imitations of those of stone, and have hitherto been constructed of cast iron, as has been the case with the great Rhone bridge of Tarascon, of a span of 197 ft. The latter has been made at little expense, and has a neat appearance. One defect, however, soon showed itself in the use of cast iron for bridges, viz., its little resistance to tension, an evil which it has been sought to remedy by partial, and finally by total, replacement of cast iron by the wrought material. The arched bridge of wrought iron was first rationally applied by Sternberg over the Rhine at Coblenz, which remains a pattern up to the present time. The Rhine bridge at Griethausen and the Mississippi bridge in America (515 ft. span) are faithful imitations of the former.

Most of the iron bridges are girder-bridges, where the principal iron bearers are freely supported by stone piers. According to theory, the resistance of the girder increases the farther the material is distributed from the horizontal axis of the cross-section. The principal bearers of the girder-bridge consist of two separate parts, the horizontal ties, which, in the case of the first bridge of this description, built by Stephenson, were connected by solid sheet-iron plates. As theory advanced, this screen was replaced by a narrow-meshed network, as we find it in the bridges over the Rhine at Cologne and Kehl, which have openings of about 320 ft.; it was finally changed to a still more open framework. At first,—for instance, in the case of the Cologne bridge,—both horizontal ties were made parallel. In the later constructions, over the Rhine at Mannheim and over the Elbe at Hamburg, they were curved like a parabola, so that the two ends met at one point; or only the upper tie was curved, as is the case with the new bridge of the Maas at Rotterdam; or else the upper tie was curved in such a manner as to form only half a parabola, so that its ends do not strike the lower tie, as is done in the cases of the Düsseldorf Rhine bridge and the bridge over the Dutch Leek at Kuylenburg. The judicious employment of these different styles of construction may best be defined by saying that the bridges with parallel girder-ties are most easily constructed, while the curved girders require the least material, and the girders of the form of a semi-parabola are most suitable for very large spans. The girders resting upon piers may either consist of one beam for each opening, or may span continuously several openings; as, for instance, in the Rhine bridge at Cologne, which has four openings, but only two continuous girders. With uninterrupted beams, which are employed mostly for parallel girders, but also, as at Aussig and Tetschen, in Bohemian Switzerland, for parabolic girders, a saving of material is effected; but they are so difficult of calculation that a mistake of a few millimètres made in their execution may considerably affect their practical capacity. The system of linked girders is still more modern, the girders of which do not unite on a pier, but in the middle between two piers by means of a joint. The first bridge built on that system is that over the Danube at Vilshofen, erected in 1872, another one being constructed later over the Main at Hassfurt.

Formerly, as has been remarked, iron bridges were principally constructed of cast iron; at present they are mostly made of wrought iron; in the future, steel will, no doubt, play the principal part in their construction, as the following remarks may tend to show. The bridging of a span, say, 60 ft. wide, does not require double, but from two to three times, the amount of material used for an opening of 30 ft.; and this proportion increases so rapidly that, for a wrought-iron bridge the sides of which are of a height a tenth part the width of the opening to be spanned, the limit at which a bridge would support itself would be reached at 1,180 ft. A steel bridge of a span of 300 ft., however, weighs only half what a wrought-iron one would, and yet would be able to carry the same loads. The proportion is still more favourable in larger spans, so that the introduction of steel bridges, considering the high perfection at which the manufacture of steel has arrived, and the possibility of producing the material in all desired qualities, can only be a question of time. At present, however, only one steel bridge has been constructed, that over the Söta Canal, in Sweden, while for the Maas bridge, at Rotterdam, wrought iron only has been employed.

A question, also belonging to the present time, is the durability of iron bridges. Formerly it was assumed to be illimitable, supposing, of course, the bridges to be equal to a maximum load; but recent experiments by Wöhler and Spangenberg have demonstrated that iron is first changed and then destroyed in its structure, by changing loads, if ever so small, especially if tension and pressure alternate; this is effected all the more quickly the greater the difference is between the tensions produced by the various loads. The necessity will arise of gradually replacing the parts mostly exposed to wear and tear by new ones. These most recent experiences have hitherto been taken into consideration in but few instances of bridge-building, but trial stations have been established, especially in Germany, to complete the information already obtained. The whole theory of constructing

iron bridges is an offspring of modern times, but the above remarks will show that, though it has passed the first stages of its development, it has not yet reached by far its greater perfection.

STREET BUILDINGS AND THE PUBLIC HEALTH ACT.

FIRST decisions upon new Acts of Parliament are always of considerable interest and importance to the general classes of persons whose interests they may in any way affect, with the exception that the persons who take part as actual litigants in these new and leading cases would probably prefer that the legal experiment should have been made at anybody else's expense than their own. It is a small consolation for their expenditure of money and time to know that society generally is benefited by the trouble of the particular individual. Mr. Kerr, of Preston, the plaintiff in the recently reported case of Kerr *v.* The Corporation of Preston, which will be found at p. 409 of vol. 46 of the *Law Journal* Reports (Chancery) may therefore be regarded somewhat in the light of a legal martyr. It appears that this gentleman had recently brought the frontage of his house into the street beyond the line of the surrounding houses. Unfortunately for him, the Public Health Act, 1875, is now in full force, and the Corporation of Preston, desirous of trying their new broom, determined to test its efficacy on Mr. Kerr. The hundred and fifty-sixth section of the Act in question declares that it shall not be lawful in any urban district without the written consent of the Urban Authority to bring forward any house or building forming part of any street beyond the front wall of the house or building on either side thereof, nor to build any addition to it beyond the front of the house or building on either side. Now this was exactly what Mr. Kerr had done. He had put his house forward, and he had not received the consent in writing of the Urban Authority. Accordingly, as we have said, the Urban Authority set to work to take proceedings against the offender before the magistrate; if the offence was proved he would be liable to pay two pounds for every day during which the offence was continued after written notice from the Urban Authority. Accordingly, Mr. Kerr came to the High Court of Justice to obtain an injunction to prevent the Corporation from continuing their proceedings on several grounds, the main one being that the Corporation were aware of his proceedings, and therefore acquiesced in his extended building. But the Master of the Rolls found an initial difficulty as regarded Mr. Kerr's experiment, namely, that the Court of Chancery has no power at all to interfere to prevent the Urban Authority from proceeding to exercise in a lawful manner those rights with which the law has entrusted them; and as regards the question of acquiescence he decided that since the written consent of the Urban Authority was required to enable any buildings to be projected beyond the fronts of the neighbouring houses, the mere tacit acquiescence, whether it tended as an acquiescence in Mr. Kerr's doings or not, was, as a consent, simply null and void in law. This latter point should not be passed over without notice, because otherwise it is quite possible that others than Mr. Kerr will suppose if the Urban Authority hold their hand that they are therefore consenting to doings to which, except in a certain specified manner, they cannot consent. The remedy, too, of the Urban Authority in these cases is in its nature a criminal proceeding, and unless criminal are inextricably entangled with civil matters arising from the same subject, the Chancery Division of the High Court of Justice will never interfere; therefore, again, it is hopeless to expect that this decision of the Master of the Rolls would be reversed on appeal. But, of course, there are numerous defences which may be well and safely taken before the magistrates. Thus, if the information is not laid within six months from the time when the offence was committed, it will, from the tenor of succeeding sections of the Public Health Act, probably be bad in law; for it is against public policy to permit the authorities not to take the earliest possible steps in a matter such as this, which involves considerable expenditure and cost. On the other hand, the offence is one of what may be termed a continuing character, which may extend over some space of time, and therefore we have very little doubt that some other person at some no very distant day will have the pleasure of trying from what date the limitation period of six months is supposed to run,—that is to say, must the complaint be laid within six months from the time of the actual commencement of the building, or from the time at which it first gets beyond the regular line of houses, or from the day on which it is completed and finished?

But the case to which we have referred, and the facts of which we have set out at some little length, as being of considerable interest to the readers of the *Builder*, show clearly enough (1) that the Court of Chancery will not interfere to prevent legal proceedings under what may be called the building sections of the Public Health Act; (2) that tacit acquiescence, in illegal enlargement of buildings, by the Urban Authority gives no consent; and (3) that there may be good defences before the magistrates to informations laid by the Urban Authority into which the Court of Chancery will not enter. But this case is also a pretty good example of the rashness with which people trust to good luck to get themselves out of difficulties which a little care at the beginning would wholly have prevented; for it must be assumed that the plaintiff never took the trouble to find out whether he was within his legal rights in building beyond the line of the neighbouring houses. At the same time it seems to us very reprehensible that the Urban Sanitary Authority should stand by until the eleventh hour without taking proceedings, and then all at once set the law in motion. It may sometimes happen that persons with the best intentions begin unknowingly to infringe the law in such cases as these, and therefore those in authority should take the speediest means to enlighten their ignorance. All things considered, this new clause may well be pondered over by builders and sanitary authorities.

"THE RENAISSANCE."

JUST after noticing Mr. Symonds's elaborate history of the Renaissance, we have before us another volume touching upon the same theme in quite a different manner. The object of Mr. Walter Pater's work, the second edition of which is just published,* is not to give any detailed history of the facts of that extraordinary period, but to pierce to its inner meaning, to show the origin and motive of the spirit which moved some of its leading minds in art, and also to trace some of the beginnings of the Renaissance spirit in art and literature, at a time when the Mediæval feeling was still the prevalent and prominent one. This latter point, the interest of which is rather literary than strictly artistic, is especially brought out in the essay on "Two Early French Stories," which takes us over curious and little known ground, and is well worth reading. The essay on Sandro Botticelli is likely to have a special interest for some readers at a time when this painter's works are being placed on a pedestal higher than at one time would ever have been imagined possible. Indeed, the author seems quite alive to the rather disproportionate extent of Botticelli's modern reputation, explaining it, to a certain extent, by classing him with "a certain number of artists who have a distinct faculty of their own by which they convey to us a peculiar quality of pleasure which we cannot get elsewhere; and these too have their places in general culture, and have to be interpreted to it by those who have felt their charm strongly, and are often the objects of a special diligence and a consideration wholly affectionate, just because there is not about them the stress of a great name and authority. Of this select number Botticelli is one," &c., in which remarks the author may be taken to have expressed frankly what many probably know, but do not express, that the recent veneration for Botticelli, and frequent imitation, or attempt at imitation, of his manner, are to be traced to an arbitrary and conscious fashion rather than to unconscious and healthy admiration. Leonardo da Vinci and Michelangelo are the subjects of separate essays, the latter in regard especially to his sonnets. The most interesting essay, perhaps, in the book, and that which bears most directly on Art, is the one on Winckelmann, which originally appeared, if our memory is correct, in the *Westminster Review*, a good many years back, and attracted some attention at the time; we are glad to meet with it in a more permanent literary form. The general aim of this essay, besides estimating the special characteristics of Winckelmann as a critic, and the special value of his works, is to bring into prominence the qualities peculiar to the spirit of Greek art, or, as the author phrases it, to give "the key to the understanding of the Greek spirit." For the general treatment of this subject we must refer the reader to the book itself; those who are given to regarding questions of art criticism in a thoughtful spirit will find in it much to interest them. As a specimen of the abstract way in which the author looks at his subjects, and his unusual method of expression, we may quote the few words in which, in this last-named essay, he touches upon architecture as contrasted with sculpture and painting. The arts, he observes, "may be ranged in a series, which corresponds to a series of developments in the human mind itself. Architecture, which begins in a practical need, can only express by vague hint or symbol the spirit or mind of the artist. He closes his sadness over him, or wanders in the perplexed intricacies of things, or projects his purpose from him clean-cut and sincere, or bares himself to the sunlight. But these spiritualities, felt rather than seen, can but lurk about architectural form as volatile effects, to be gathered from it by reflexion; their expression is not really sensuous at all. As human form is not the subject with which it deals, architecture is the mode in which the artistic effort centres, when the thoughts of man concerning himself are still indistinct, when he is still little pre-occupied by those harmonies, storms, victories of the unseen world, which, wrought out into the bodily form, give it an interest and significance communicable to it alone. The art of Egypt, with its supreme architectural effects, is, according to Hegel's beautiful comparison, a Memnon waiting for the day, the day of the Greek spirit, the humanistic spirit, with its power of speech." And this power of speech, or (as it has otherwise been called) phonetic art, is supplied in its completed form by painting, between which and architecture comes sculpture as the intermediate link. Into his disquisitions upon the reason for this intermediate place of sculpture, as the art of form but not of colour, and for its special suitability to the expression of the Greek spirit in Art, we cannot here follow Mr. Pater, but we recommend his book, with its eloquent and glowing, though at times somewhat affected, style, to the attention of our readers.

* The Renaissance: Studies in Art and Poetry. By Walter H. Pater. Second edition, revised. London: Macmillan & Co. 1877.

THE RUINED CITIES OF CAMBODIA.

THE archæology of the East is of the highest interest to Europe, and particularly so when it becomes more and more remote in the perspective of our knowledge. Gradually, however, although only within recent years, a great development has taken place even in the little known regions of South-Eastern Asia, and especially so in the kingdom, long regarded as a mere barbarity, without history or antiquities, of Cambodia, which has lost its very title among political communities. But, less than twelve years ago, Oriental travellers began to bring home strange stories about the signs of an ancient civilisation in that country, at which, indeed, previous explorers had guessed, on account of the remains, sculptured all over with undecipherable inscriptions, which were continually being discovered scattered through the forests. Soon afterwards, however, it was demonstrated that all this splendour could not have arisen in an age of pure priesthood, but that a system of civil society, more or less magnificent, must have existed also. The first example was identified in the traces of an extensive palace, royal in its ornamentation, and situated far in the interior. Next, the remains of a mountain high road, with all its gaps filled up by Cyclopean masonry, and divided into distances by huge monumental columns of stone, were discovered, with bridges of bold outline, and scientific architecture. By degrees the whole land burst into a crowd of ruins, indicating former cities which, in their day, must have been prosperous, splendid, and wealthy. The first traveller attracted along this clue to the secrets of a mysterious history was suddenly startled, when he imagined himself to be in the midst of a primæval wilderness, by the sight of a colossal bridge, 400 ft. long and 50 ft. broad, carried upon thirty arches across a furious and high-banked stream. That was about twelve years ago. Since then the edifice has been examined, and recognised as being constructed of freestone, with the exception of a hard conglomerate used

n the lower parts of the pillars wherever they are exposed to the continuous action of the water. The artificial, so to speak, joins, and is fixedly riveted to, the natural foundation, consisting in a ledge of rocks extending across the bed of the river. The masonry of the columns, which stand in pairs, is of a peculiar form, arching in opposite directions, as one traveller has said. A more complete form of structure, architects have admitted, considering the purpose to which it was to be applied, could scarcely be conceived, rude though its outline might be. The body of the bridge, again, is a marvel of solidity, being composed of enormous blocks, placed in layers, one above another, until an apparently superfluous thickness is attained. The balustrade, however, upheld by Caryatidean images, is nearly gone, as being the lightest part of the building. Traces of a temple are visible in the near neighbourhood, with groups of idols, both Buddhist and Brahminical in character, but we have come to none of the cities as yet. But, both up and down the river, other bridges are found, which must have outlived the wear and tear of many centuries; and close by are the ruins of gigantic shrines, around which populations must have thriven, although their inferior habitations have perished out of memory. In fact, the sculptures on those vast walls assign to them, as it were, a popular character, precisely such as, at all events, we should not expect to meet with in a desert. We are thus at the disadvantage of not being enabled, as at Pompeii or Herculaneum, to gain any glimpse of the people who probably crowded this region at that time, of their manners, of their arts,—except in so far as the architecture and sculpture go,—of the utensils they used, of their domestic life, or the general condition of their industry. Nearly all has been overwhelmed, and buried in the darkness of ages, except these trophies of a strange and powerful idolatry. True, we have illustrations of costumes, and of head-ornaments especially, but they are chiefly associated with the royal or sacerdotal classes, and do not appear to belong to the fashions of private life. Elsewhere, however, quays built on lakes, relics of mouldings, pavilions, graphics on stone, and so forth, relate, as it were, the games and amusements of an antique race, whose prosperity must have attained a high degree. But, although abundant collateral evidence exists of the life generally led by that nation which has scarcely left a name, the distinct testimony fails at the point where we are most interested in seeking for it, though beneath the surface are manifest traces of domestic abodes, private dwellings, and monasteries, so to call them, which were originally divided into long ranges of cells. In one place the outlines of an entire town can be drawn, with its fortifications, palaces, temples, ornamental waters, houses, and streets, all built, at first, with stone, though often repaired with brick. Dr. Bastian asserts that sometimes, to strengthen the structures, beams of a hard kind of iron-wood are fixed into the masonry, but in such a way as only to become visible after the outer stones had fallen down, through some accident; but certain of the native archæologists go further, and affirm,—though upon what authority beyond that of a very impalpable tradition, it is impossible to say,—that some of the great slabs were not natural, but manufactured on the spot. Legends, certainly, of soft-built architecture, subsequently hardened by a forgotten process, are prevalent throughout that region of the East, and, if true, might account, in a degree, for the stupendous scale upon which some of the South-Eastern Asiatic edifices were planned and raised. In spite of this colossal character, however, the latest travellers tell us that these Cambodian ruins, seen from a distance, assume aërial forms, and appear altogether to lose their solid and substantial reality. It is possible, nevertheless, that a mirage may recur, at intervals, throwing them out of their real aspects, transplanting them, in the sight of the explorer on the plains, to imaginary positions on the hills, and etherealising them to his eye. Tois much, however, is true: that vast treasures, or relics, of a past-and-gone civilisation may yet have to be exhumed in that remote and isolated region of Asia, where the earth may still be wealthy with monumental fragments; but the difficulty exists in evoking a sympathy that shall stimulate to future discovery. Egypt and Assyria belong, through the holy records, to our history; Herculaneum and Pompeii, by right of kinsmanship and the universal chronicles of Europe, are connected with us also; but, although we took an interest in the monuments and antiquities of America and Central Asia, it is not easy to excite any enthusiasm concerning the past life and achievements of foreign nations in the far East.

INDUSTRIAL CLASSES IN CRETE.

CRETE, with three smaller islands in the Grecian Archipelago, forms a pashalic of Turkey which has been so neglected and misgoverned, first by the Egyptians and then by the Turks, that it would be a matter of no surprise, in the event of further Eastern complications, to hear of a Cretan revolt against the Sultan's Government. This unhappy island has not known what prosperity means for upwards of two centuries. For that long period, dating from the Turkish conquest, the deadly blight of oppression and warfare has rested upon the land. It had flourished as a province of the Eastern empire when the Greek emperors of Constantinople were popular and vigorous rulers, and became still more prosperous under the Venetian republic. At that time there were reckoned to be a million inhabitants in Crete; now there are little more than a quarter of that number.

The population is mainly agricultural; there are no mines on the island, and the fabrics which are worn are chiefly made at home. Wine-making, and the extracting of oil from olives, are also operations confined to the family circle, and cannot be considered as industries open to competition. Indeed, soap-boiling is the only industry carried on in Candia, Canea, and Retimo, on anything approaching a large scale. In order to understand the condition of the artisan class, it will be necessary to convey some idea of the state of society whose wants their labour supplies. The well-to-do classes are Mussulman landed proprietors, who retain all the simple habits which distinguished their ancestors, and the older generations of whom give little encouragement to the arts which minister to the ease and luxury of existence. Their wants are modest and easily satisfied, and if they are ever lavish in expenditure it is in the multiplication of servants and dependents. If you visit them the only articles to be seen are the few carpets, divans stuffed with cotton, and a low stool, on which is placed the circular brass tray for serving up the repast round which the family squats on the floor. In some houses a table and a few chairs are a recent innovation. Their mattresses are spread on carpets at night, to be stowed away in closets during the day, and the few pots and pans and the indispensable pipes complete the furniture of the establishment. This is the style in which are content to live the entire Mussulman population, who comprise 30,000 out of the 45,000 inhabitants of the towns. The country population, Greek and Mahometan, live in similar fashion, and out of the remaining 15,000 Christian urban population, 10,000 may be set down as either very poor or in humble circumstances. Of the residue of well-to-do people the merchants are the most prosperous; but they, with few exceptions, possess no capital, but buy and sell on commission, the average gains of the richest of them seldom exceeding 400*l.* a year. The frequent insurrections in Crete have contributed to bring about this general penury, no intervals of security occurring of sufficient duration to allow of that accumulation of wealth which never fails to be attracted to more settled communities. In the absence of local manufactures, there exists no class in Crete possessed of the means requisite for fostering the arts of skilled industry.

Although the Greek Christians are in a considerable minority in the towns, they form the most numerous class of artisans, the Greek Mussulman taking to the less active occupation of shopkeeping. The system of guilds which prevails so largely at Constantinople is unknown in Crete, all trades being thrown open to competition. The labour of masons and carpenters is paid for by the day, not by piecework. A first-class workman is paid from 3s. 7d. to 5s. a day, but this does not convey a just idea of the annual earnings, inasmuch as there is less demand for their labour in winter than in summer, owing to the disinclination of employers to engage workmen when the days are short. An average loss of sixty days in the working year may fairly be set down to this circumstance, and if another thirty days are added for fête days in the Greek calendar, we shall find, not counting Sundays, that the working year is worth to the artisan only 220 days instead of 313, representing an annual loss of 25 per cent. on the annual value of his labour. The average quality of the work turned out by the native artisans is slovenly, but it by no means follows that they are not proud of their work. The standard of excellence, however, being low, the artisan is not so easily put out of conceit with his work as if he were able to compare it with the more highly-finished productions of the English artisan. There are few native joiners, for example, who are equal to putting in a window-frame capable of keeping out wind and rain, and no care is taken that the wood be well seasoned, hence it quickly warps in hot weather. Residents in the towns who build their own houses have procured all the doors, shutters, and window-frames, ready-made, from Marseilles, and they cost less, freight included, than if made on the spot, besides being of far better workmanship. The explanation of this is, that a good French or foreign mechanic will turn out more work than a native would; for the Cretans are not only idle, but are invariably to be seen at work with a cigarette in their mouth. The neatest masons, stone-cutters, and carpenters come over from the neighbouring islands of Cerigo and Cerigotto, remaining during the six months of summer, and returning to spend or hoard their earnings at home. These men are quicker and defter at a job than the Cretans, and consequently seldom unemployed. When work can be found, masons earn about 2s. 6d. a day; carpenters, 3s.; common labourers and porters, 1s. 2d. With the exception of these and of soap-makers, the other artisans and other industrial men keep shops, and, with the aid of their apprentices, work on their own account, and sell the products of their industries. The daily wages of common soap-makers are 1s. 9d., and those of masters, 2s. 6d. to 3s. Generally speaking, the hours of labour are ten daily. Apprentices in all classes are not paid at first, but are clothed and fed, and, when proficient in their respective callings, receive in addition from 7d. to 1s. 1d. per day. In the towns women are engaged in spinning and weaving cotton, woollen, and silk stuffs, and rearing silkworms.

In estimating the purchase-power of money, it must be borne in mind that although meat and vegetables are cheaper than in England, yet a pound of stringy, poorly-fed mutton, such as Crete produces, does not go as far as the same amount of English-fed beef and mutton. Bread is about the same price in both countries, most of the flour consumed is imported from the Black Sea. House-rent is no cheaper than in English manufacturing towns, and clothing is considerably dearer. The opinions of certain Scotch engineers in the employ of the Turkish Government, who receive from 20*l.* to 22*l.* a month, lead to the conclusion that the cost of living is 50 per cent. more than it is at home. The British artisan would starve on the spare diet which forms the nourishment of the natives. Indulgence in eating is a sin the Greek workmen is usually free from. His ordinary diet consists of coarse bread seasoned by a few olives, salt fish, or cheese. This he washes down with a pint of wine, strong but wholesome, and during a summer's day will swallow more water than the English workman would drink in a week. He is also a large consumer of vegetables cooked in oil, which in Crete is the substitute for butter, and in summer he varies this diet by a plentiful use of grapes, figs, and melons, which are extremely cheap. He seldom tastes meat, and during the seasons of fasting prescribed by his Church, the use of fish, fresh meat, and eggs, is forbidden him. The English workman would not thrive on this fare. He would loathe the oil, nor would he at first relish the wine. But as he could not buy beer, which he is better without, he would soon take to wine, a moderate use of which is wholesome. Mutton would take the place of the oil, and such little luxuries as butter, bacon, or tea he would have to go without or procure from abroad. The natives wear warm woollen clothing at all seasons of the year.

As regards accommodation, the native workmen in towns are decently lodged, a family generally occupying two rooms and a kitchen (not usually a self-contained house), the rent for which is about 15*l.* a year. All the three towns of Candia, Canea, and Retimo are considered healthy, the Venetians having bequeathed their conquerors solidly-constructed main drains, which empty their contents into the harbours, where they are sufficiently diluted with sea-water to be innocuous. While, however, these sewers carry off the drainage of the principal streets and the contiguous houses, the dwellings where reside the artisans are provided with cesspools, which are too often offensive. In the upland plains the

houses are low and large compared to many others, but irregularly built, and consisting of two apartments, one for general use, and the other for lumber, or a cow, if the owner is possessed of one. But the part inhabited is a specimen of primitive contentment. A mud floor full of pits; a long bench on the inner side, half mud, half masonry, as the bedstead or couch; a fireplace in a niche, and a chimney just through the roof, with a broken water-jar as the chimney-pot; one low door, and a small window like a scuttle in the innermost part, serve for ingress and light to the dwelling. As the room is low and wide, its roof is supported along the centre by two crooked trees, ornamented with sacks, seeds, lamps, and earthenware, either stuck upon nails or branches, but all black like the roof above. This is the kind of house in which live well-to-do Cretan peasants, and a more comfortless hovel it is difficult to conceive. Although there is plenty of stone to be found for lime, and abundance of fuel to make it, the peasant takes no pains to render his habitation much better than the compartment appropriated to his beast. The idea of order and arrangement of the various utensils is wholly wanting. No whitewash is used,—dirt is hidden by darkness, and discomfort by apathy.

WANDERINGS AND QUESTIONINGS IN ARCHITECTURE AND ART.

ARCHITECTURAL CHIAROSCURO.*

LIGHTS and shadows, the judicious management of which in painting is the art of chiaroscuro, which is a part of composition, and along with composition a constituent part of design, are the life and soul of architecture. Without them the masses of a building, however cunningly disposed or richly sculptured, would be as dead matter. But porticos, porches, buttresses, cornices, water-tables, &c., besides their primary structural purposes of shelter and the rest, have another use,—the production of a play of light and shade. The importance of this must strike the most unthinking student, when he witnesses the magical effect of shadow on a line-drawing which previously seemed to represent the mere skeleton of a building, and when he reflects that an engraving representing, perhaps, the grandest scene in nature or history, is nothing more than a fine marriage between light and shade. By means of it alone Rembrandt attained sublimity; and in his paintings and etchings could make us heedless of coarseness of conception and meanness of form. It is as magical in architecture as it is in painting and engraving. If a piece of architecture is music of the eye, it is the sun or daylight that plays on it and makes the music which charms us; like the wind on an Æolian harp, or the rays of the morning sun on the statue of Memnon. Indeed, an edifice properly designed, that is, rightly endowed with the organs of light and shade, is like a grand musical instrument,—harp or organ,—prepared for the hand of the performer. It is an instrument on which the god of day, appropriately identified with Apollo, the inventor of the fine arts, is to play an infinity of tunes. The endless variety of fine effects of light and shade, of which a well-designed building is susceptible, and to which it wakes up every twenty-four hours, is thought of by few architectural designers. It would seem as if beauty, previously sleeping beneath its projections, was roused by the daylight from her slumber.

Any building that has windows and doors, and cornices, and so forth, will of necessity receive light and shade: the architect's task is so to design his building that it will have the best possible effect consistent with its fulfilment of its practical purpose, viz., breadth. That unifying disposition of light and shade which the painter puts at once into his picture, and by which it strikes the spectator as a whole, the architect provides for in his building by the wise arrangement of its projections and recessions. This is the most poetic quality a building can have; the one that shows the hand of a master, and which more than any other renders it pleasing to the cultivated eye. A brilliant concentration of light by contrast with deep shade has a charm that nothing else,—no detail or beauty of form or composition,—can impart; and a comparatively barbarous piece of architecture is more striking to the imagination where this is obtained than the most refined where it is wanting. The principle applies to all styles, and is equally binding upon all,—western or eastern,—trabeated or arcuated; and has been obeyed, consciously or unconsciously, by the designer of every truly great building in every age and country, whatever its material or constructive mode. When the author of the otherwise able article in the *Builder* entitled "Art in Architecture,"* says, in treating of Gothic, that a principle the opposite of what is expressed by the term breadth is to be contended with in that style, he mistakes the meaning of the term, which is not identical with literal width in proportion to height, or what the late Mr. Cockerell, if I remember rightly, used to call the "broad gauge." Breadth is a more recondite and more difficult quality to obtain than that, and a quality the opposite of it is spottiness or obtrusiveness of points of minor interest.

To obtain breadth of chiaroscuro there must be no sacrifice of any necessary element. It will not atone for emptiness or the absence of any other quality, being nothing in itself, only a principle of arrangement which a building may exhibit, and yet be worthless. The architect's task is to combine all needful features of his design and every element of beauty so as to enable the eye to take in at one glance, and the intellect to comprehend in one idea, the whole mass or totality of the composition. It is most easily performed in the case of those monumental erections, the form of which is not governed, or is the least governed by considerations of utility. Places of worship, for example, should always have breadth of light and shade in its full measure, there being in such edifices less excuse for its deficiency than in domestic—commercial or scholastic—buildings, the peculiar requirements of which might in a more or less degree interfere with it. But there is scarcely any purpose for which edifices exist that will entirely prohibit attention being paid to it; and every building of importance, or designed to lay claim to rank as architecture, must be designed with some reference to it.

Though, strange to say, but little attention has been given to the subject of chiaroscuro by architectural writers and critics, nothing is more clearly taught by nature, whose works, undisturbed by accident, are always broad. It is more important in architecture than in painting, at least in the higher walks of painting, because there is more in the latter to atone for its absence than there is in the former, which is simply saying that columns and entablatures, arches and piers, are not so interesting and beautiful as human and animal figures. Its importance as a source of beauty in the works of God suggests that attention should be paid to it in those works of man which are to be associated with them, which are additions to the natural features of the earth, and complete, so to speak, the furniture of the globe.

Each façade of a detached building, I conceive, should in itself be made as satisfactory as possible with reference to light and shade, and all the façades should be so designed that when seen in connexion in a view of the whole building breadth, will not be disturbed, but rather enhanced, a result which nature's perspective will greatly aid, as a building always comes broader where the two sides are seen, one in light and the other in shade. My remarks will generally refer to the principal façade.

As in an historical painting the principal light is generally so disposed as to give the greatest lustre to that part where the action and personages are of the greatest consequence, so in architecture, the highest light will be generally about the chief entrance, be it portico or porch, and fall on its entablature, columns, or archivolts; while the deepest shade will be brought up to enhance its value, and throw out these chief forms in the design. To secure this result I should, by tracery, diaper-work, or rustication, reduce the light to middle tint elsewhere; which is suggested to my mind by the frequent effect of accidental shadows on buildings, from our cloudy sky and misty atmosphere, in producing all the tints that float between sunshine and shadow, and which give our buildings an immense advantage over those of sunnier climates. Rustication has been much used of late, but has not been made as useful an element of design as it might be.

In every building aspiring to architectural character, I think there should be one commanding mass of shadow, generally in the centre, made by the main entrance. If the chief façade be parallel to the longitudinal axis, there will be more than one mass,—subordinate ones on each side. If it be parallel to the transverse axis, as a church, it may have but one mass; and, so provided with unpierced flanking masses of wall, no façade can look mean.

The west fronts of the Mediæval cathedrals owe their grandeur mainly to the broad and deep masses of shadow of their central entrance, continued upward by the great west window, between masses of solid tower. If the buttresses of some of them had been less scooped by niches, they would, I humbly think, have been the better for it; but the gradual increase upwards of carved or sculptural enrichment in the flanking towers, as it gradually increases the darkness, through the scale of tints, to shadow, relieved only by glittering lines or points of light, gives brilliancy to the smooth parts below, which reflects the light, and produces general breadth; an effect which, in similar modern compositions, is often lost by too much lateral piercing for doorways, which might have been confined to one broad expansive group in the centre. But I believe that a satisfactory effect is generally best obtainable by having the principal entrance feature, whatever it may be, partly recessed and partly projecting. If it include cylindrical forms as columns, all the better for brilliancy, as such forms must receive a line of the highest light.

To secure the highest light, and give brilliancy to important features, is, I conceive, the best use to which polished marble and granite could be applied. The lighter polished materials might be made to give high lights, while the darker and unpolished ones would aid the shadows. The reflecting power of polished materials enables them to play a distinguished part in reference to the quality in question. A broad opening into an inner porch, or broad doors of dark colour,—oak or mahogany,—in the background of the portico or loggia will, by deepening the shadow, increase breadth; panels of dark granite in the background would have the same effect. But coloured materials might be otherwise and variously made use of. In the works of Rembrandt, and most of the Dutch and Flemish painters, a rich and brilliant colouring and mastery of chiaroscuro were combined to produce breadth of effect. They brought a great mass of warm colours pretty closely related to each other, and opposed them to a small mass of the cooler compensating colours; and I think that in architecture dark and cold-coloured stone might be used to deepen the darkest shadows; and light and warm and bright stone, approaching gold colour, to intensify and enrich the brilliant lights. White marble statues, or groups of statues, placed over the centre of a building, or bas-reliefs in pediments or gables of lighter-coloured stone, might be made to play a part in chiaroscuro by furnishing the highest light.

Breadth may be obtained in architecture as in painting either with a large quantity of light and middle tint and very little dark, or with the reverse conditions; but a Rembrandt-like breadth and depth of shadow, and concentration of high light, is the grandest.

The colonnade or columnar portico, though in itself a poetic feature, is not favourable to breadth, as it yields divided shade; and the lavish application of it to modern buildings during the Greek mania, in excluding a broad, deep entrance, has interfered with breadth. It has done so in the Paris Bourse and the Church of St. Madeleine; in the British Museum, the Leeds Town-hall, the Birmingham Town-hall, the Picture Galleries, Edinburgh, which all have, more or less, a liny, if not spotty, appearance. In the Church of St. Madeleine the eye is only drawn to the front by the important sculpture of the pediment. Square detached pilasters cut up the shadow more decidedly than the round column. Coupling in some measure mends the matter, though Wren and Perrault have been found fault with for doing it, as, by coupling, broader openings can be obtained with the same columnar richness. Fluting the column, also, or having a darker material, in a considerable degree corrects the defect. Wherever long colonnades are introduced, they should be flanked at each end by a proportionately long mass of unpierced, or but little pierced, wall. The plain wall on either side of the portico of the Pantheon at Paris gives a grandeur to the front that probably no statued niches or bas-reliefs could have secured.

What I have said against the colonnade will be considered a reflection on the Greek temple; and, indeed, I humbly think the peripteral temple, though it exhibited deep and powerful shadow at front and back, giving great brilliancy

* See a former paper on the same subject by the author, *Builder*, vol. xxviii., p. 342.

* Vol. xv., p. 701.

to the entablature and columns,—an inferior architectural object to what the Greeks could have created by a combination of their refined and matchless colonnade with unpierced masonry. The fronts of the temples in antis, or with antæ at the angles instead of columns, and such compositions as the Erechtheum, were better, but the peripteral temples present more parallelism of line and less variety of form than consist with the important quality, breadth. The introduction of the arch into architectural design gave the Romans an opportunity of remedying this. But they did not do so; and it was left for the Lombard and Gothic architects to make the really artistic and most important application of arcuation. Perhaps nowhere is the light and shade more satisfactory than in the west front and transept ends of our cathedrals. What can be broader than the fronts of those of Peterborough, Lincoln, York, Wells, Notre Dame, at Paris, the great deep entrance-doors of which, and the east windows, are especially favourable to breadth? But the sides of most of these buildings are as broad as constructive exigencies would allow. The wide windows, with nothing but buttresses between, dividing one vast wall of glass, have a powerful effect, which might probably be emulated in Classic pilastered buildings by having the windows to extend the whole intervening space.

But the acknowledgment of the arch as an architectural feature gave means to architects in the neo-Classic style, also possessed of any imagination,—an essential quality in an architect, of combining columnar richness with the widest and deepest openings, and producing any amount of breadth and power. But the architects of the Revival were slow to avail themselves of all the advantages which the arch held out in respect of architectural design. In the great Italian and French palaces, broad, deep, and lofty openings, for unity and breadth of light and shade, were too often wanting. In fact, in these, and in a multitude of important buildings which might be cited, such provision seems to have been absent from the minds of the architects, by which it comes to pass that the Louvre and the Tuileries are exceeded in power by some of the inferior French palaces. The grand front, as well as all other façades, of the costliest church in the world, St. Peter's at Rome, is as strikingly deficient in this quality as it is remarkable for the treasures of art bestowed on its interior. The knocking of its three central doors into one opening, and formation of a loggia, or portico *in antis*, would be the redemption of at least the chief façade. Indeed, such a cut into the central entrance-hall would give life to many a square-blockish building. I must reserve farther remarks on this subject for a second essay. SAMUEL HUGGINS.

THE LATE MR. JOHN WIMBLE, ARCHITECT.

MANY will hear with regret of the death of Mr. John Wimble, which took place on the 29th ult., at his residence, Surbiton-hill, at the early age of 39.

In consequence of declining health Mr. Wimble had been obliged for several months past to absent himself from business, but the attack which proved fatal came on within forty-eight hours of his death.

The deceased gentleman was born at Maidstone, and after receiving his education at Tunbridge School, was articled to Messrs. Whichcord & Son, of the former town. Coming to London shortly after the expiration of his articles, he commenced independent work, which soon developed itself into an extensive practice.

It will be seen from the list we append below, that the more important portion of his practice was carried on in the metropolis, and especially in the city. Indeed, it was the thorough knowledge of the requirements of city properties, and the careful calculation and accurate foresight necessary for their profitable development, that, together with his ingenuous and straightforward character, secured to the deceased architect that confidence which was given to him.

In the more recent years of his practice he was much engaged upon compensation cases for the Metropolitan Board of Works, particularly in those arising from the formation of the Northumberland-avenue; for the City Commission of Sewers; and the School Board for London.

Of Mr. Wimble's architectural works the following may be mentioned:—

The head station for the London Salvage Corps, Watling-street and Queen-street, and their branch station in Commercial-road; the extensive buildings covering the site of the Old Four Swans Tavern, Bishopsgate-street; the Albert Wing of and other additions to the Royal Asylum of St. Anne's Society, Streatham-hill; Nos. 59, 60, and 61, Haymarket; Messrs. Boosey's premises, Regent-street; new building at the corner of Ludgate-hill and the Old Bailey; the south-west quadrant of Ludgate-circus; Messrs. Mather's premises, Farringdon-road; the entire block of warehouses at the junction of Leadenhall-street and Fenchurch-street; the Peninsular and Oriental Steam Company's Offices, Cockspur-street; North-street Church, Brighton; warehouses and other buildings, occupying altogether about one-third of the entire frontage of the lower portion of Queen Victoria-street, and about one-third of Southwark-street.

His death is a great loss as well to his family as to a large circle of friends.

The practice will be continued by Mr. William Wimble, who was lately admitted by his brother into partnership.

OLD HOUSES AND THEIR STORIES.

REMBRANDT'S MILL.

BETWEEN the villages of Leyendorp and Konkerth, near the city of Leyden, in Holland, there stood, at the close of the seventeenth century, a large old-fashioned corn-mill. Close beside it, divided and dwindled into shallowness and narrowness, the river Rhine, so noble in Germany, crept reluctantly onward to presently stagnate into miserable ponds and puddles, amongst low-lying, far-stretching beds of ocean sand. The mill stood on that luxurious novelty in Holland, a slight eminence, and had, moreover, the good fortune to exist where the flatness and monotony of the surrounding well-cultivated and fertile country was agreeably varied by stretches of woodland. It was the property of a well-to-do miller, who resided in a low, high-roofed thatched house standing beside it. His name was Herman Gerritszoon, but from his long ownership of the old mill by the river-side he was generally known amongst the neighbouring villagers and citizens as Herman of the Rhine (Herman van Rhyn).

Herman Gerritszoon's time had been one of wild and fierce excitement. For forty years the united states, or provinces, of Holland had been waging the great fight against Spain for liberty and independence. Battles by sea and land had been fought with terrible savageness and fury; deeds of courageous heroism had been done which fired the blood of all Europe; religious bigotry had assumed its most frightful shapes, and the horrible atrocities it instigated had maddened the weak with terror and the strong with rage. Towns had endured the longest sieges ever heard of, with famine almost as merciless within as human foes were without their gates; new instruments for destroying had been devised, justly named Infernal. Even the dykes had been thrown down, and the country inundated, to sweep away the sanguinary detested Spaniards. Ruffians and thieves, called Picaroons, had banded together in large bodies to war against the weakened law, and cold-blooded acts of revolting cruelty made their name terrible in every household. Assassination had been recognised with honour in high places. Art, science, and literature had withered in the awful tempest of civil war, and Antwerp, the queenly home of art, wealth, and commerce, with its great fairs, to which all the merchants in Christendom had flocked in such vast numbers to purchase manufactured goods and choice works of art, had been reduced to slavery, poverty, and ruin.

But Herman of the Rhine, otherwise Herman Gerritszoon, had seen also another face of things. Although at that time the brave and sturdy Dutchmen had no settlement in the Cape of Good Hope; had not yet won Cochin and its dependencies, nor Malacca; did not yet trade directly with China; were excluded from Japan; and although the war still raged and their land alone could not support a twentieth of their number; yet the frugal freedom-loving Dutchmen, brave, industrious, sober, patriotic, and self-denying, contrived to support all the burden of their desperate struggle with Spain and yet grow amazingly in strength and riches.

Amsterdam, the capital of the new republic, notwithstanding the inconveniency of its port, was rapidly assuming its position as the successor of Antwerp, the magazine of the world. Every part of Holland was in the act of being enriched and improved. On the seas the United States or Provinces were soon without a rival. Their commercial marine consisted of ten thousand sail and one hundred and sixty-eight thousand seamen. In Europe alone their merchant-vessels numbered over twelve hundred, and these were being added to considerably at the rate of two hundred a year. New outlets for their commerce and navigation were being sought and found. In 1598 eighty vessels left Holland laden with goods for America and the Indies. Gold dust from the coast of Guinea was an extensive trade, and the herring fishery alone gave employment to six hundred and forty vessels, with one hundred and twelve thousand seamen. Holland was the grand entrepôt for the corn-producing countries of the Baltic. Sir Walter Raleigh said "a dearth of corn of only one year in any part of Europe enriches Holland for seven years." Thus while commerce flourished, money gave strength to endure and carry on a war which was fast impoverishing and exhausting even Spain, richest and strongest of nations, but one in which commerce had been neglected in the rage of tyranny and religious persecution. Yet it seemed to Europe altogether incredible and miraculous that a country like Spain should be held at arm's length by such a seemingly puny antagonist. Even the brilliant general and brave soldier the Genoese nobleman Spinola, wondered at it until one day, perhaps, when he was on his way to the Hague, with President Richardot, to negotiate Spain's first truce with the Dutch. On this occasion seeing some eight or nine persons sitting together on the grass to a dinner of bread and cheese, he was told that they were the sovereign lords of the Dutch Republic, deputies of the States, and said thoughtfully, "We had better make peace with these people, we shall never conquer them!"

Sir Walter Temple, some years later, said of Holland,—"Never any country traded so much and consumed so little. They buy infinitely, but it is to sell again," and he added, "The Dutch are the great masters of the Indian spices and of the Indian silks, but wear woollen, and feed upon their own fish and roots. Nay, they sell the finest of their own cloth to France, and buy coarse out of England for their own wear. They send abroad the best part of their own butter into all parts, and buy the cheapest out of Ireland and the north of England for their own use. In short, they furnish infinite luxury which they never practise, and traffic in pleasure which they never taste."

Such was the state of Holland, and such its people, when Herman Gerritszoon, wandering from his residence at Weddesteeg, stood one day before the solitary old mill, in contemplative mood, inwardly debating in his thrifty mind the prudence of making an entire alteration in its interior fittings and general arrangements. During the war it had been used as a magazine for gunpowder, and now that peace was confidently expected, and security fairly won, Herman deemed it wise that it should be restored to its original use, and help to perpetuate rather than destroy human life. And, so in good time, it came to pass that the old mill's huge sails, once more in action, went whirling clumsily round to the creaking music of their own motion, and in the little heavy dormer windows of the adjoining cottage lights once more gleamed through the chilly grey mists which closed around it with the evening gloom.

On the 15th of December, in the year 1606, when the exhalations of the damp Dutch climate were heaviest and coldest, and the short wintry days at their darkest and gloomiest, when the lonely old mill loomed out grim and melancholy enough in the dim light, Herman van Rhyn was in a state of no small excitement. The ladylike woman whose refined intellectual expression you may have noted recently in the exhibition of Rembrandt's etchings at the Burlington Fine Arts Club, on that day presented her husband, this same Herman Gerritszoon, with a first-born son, who was named Paul Rembrandt, and thus gave the old mill-house of our sketch a lease of immortality as the birthplace of a truly great painter, with whose name in years to come it was to be indelibly associated.*

* It is right to say that Mr. Seymour Haden, in his admirable essay, "The Etched Work of Rembrandt," denies that Rembrandt was born in the Mill. Mr. Haden, moreover, adopts July 15th as the day of his birth, but the reference made to Rembrandt's dated picture does not establish this.

As Paul Rembrandt Gerritszoon grew up, petted and spoiled, more or less, as the only child usually is, two ideas became associated in his mind, inseparably and kindly, namely, home and gloom. The old thatched house, with its low walls, and its steep roof partly overgrown with rank herbage and parasitical plants, if we may judge by the etching Rembrandt made of it in 1641, when he was thirty-five years of age, admitted but little light. It was snug and warm enough in winter, when lighted up with firelight and lamplight, although a poor place at best, but even in the brightest days of summer it must have been decidedly in gloom. And in the mill itself,—Rembrandt's first studio,—even sunlight streaming in through loophole windows and overshadowed wickets, merely lighted up small spaces here and there, giving gem-like patches of light in the midst of huge masses of shadow, obscurely traversed by faintly and mysteriously reflected lights which made the darkness visible, and dimly revealed the clumsy, heavy machinery, the rudely-constructed ladders, the piled sacks, and the dusky forms moving about in the old mill's gloomy interior. These scenes becoming familiar to Rembrandt at a time when young sensitive minds are most deeply impressed by visible objects, and, being dear to him from their associations, had their influence in after years, and found forcible expression in the production of those wonderful paintings wherein Rembrandt's labours of love did for shadow what Turner's afterwards did for sunlight.

As the baby Paul grew into boyhood, those cravings of curiosity which are common to all young minds surely sent him a wandering. The mill and its old house stood alone; there were no playmates for the only child; his parents were busy, hard-working people. We can imagine him, left much to himself, following the river he was born beside out and away towards the sea-shore, where the great bare sandy downs shutting out the sea, gave him a new sensation, as, laboriously mounting them, he sank ankle deep into their yellow heights, and, reaching their tops, saw with awe the German Ocean outstretched beneath him, far away to the dim horizon higher than the land. A grand sight! When the salt sea wind arose and drove the sand before it into great drifts, and carried its clinging particles with clouds of spray far away inland, he was doubtless soon dislodged; but when older and bolder, when the wind was down and the sea calm, he ventured further along the sands and saw the fisher folks—barelegged men, women, and children, all busy landing prodigious cargoes of fish from their fleets of stout, clumsy boats, then new sensations were experienced,—wonderful glimpses into the mysteries and delights of colour, as he watched the prismatic glories of the dying fish, or marvelled at the changeful hues of the sunlighted ocean restlessly heaving beneath clear and sunny or partially clouded skies. The dog-carts which brought the fish to market, or to load the canal-boats, were probably attractive to the little wondering wanderer, for all boys love dogs. When the sea and its tawny ridges of sand were less attractive, the fresh green fields and rich pasture lands had charms, or for the moan of the restless ocean Paul exchanged the melodious warblings and merry outbursts of song from small birds in the forest depths amidst the patches of gloom and sunlight, where the flickering shadows of dancing leaves were, and myriad beauties of form and colour in leaf and flower, subtle ministers of delight to the artistic mind, teachers of lessons to be imbibed unconsciously and in silence, but never to be forgotten. Then there were other boyish resorts, the open glades with clumps of oak and hazel, and flat green meadow lands with their groups of cattle basking in the sun. He had occasional playfellows in the peasant children who came with their parents to his father's mill, and in his boyish wanderings found his way to the surrounding villages, and at Leyendrop saw, probably for the first time, a certain peasant girl, who was afterwards his favourite model, and who, when he had started in life as a teacher of painting in that big house on the Breedstaat [of Amsterdam, became his wife.

Holland was then famous all over Europe for its great picture fairs or markets, to which came all sorts and conditions of people, with great gatherings of foreign merchants and noble art-lovers, to buy pictures. The Dutch themselves were great buyers of such things, and had amongst them native artists of all kinds, and in every degree of merit. They bought, however, mainly, as dealers do, to sell again, and selected such subjects as pleased their customers rather than such as pleased themselves. Their great republican cities and towns boasted regularly-established guilds for the proper regulation of all trades, amongst which, although as the highest and noblest, was, in their estimation, the artist's.

The painters' guilds, like the others, were regularly chartered bodies of associated members, living by their arts, whose business it was to guard carefully the interests of their trade. And their duly-elected Masters were men chosen for practical ability and eminence,—a keenly-wakeful brotherhood, sternly resolute in supporting their chartered rights, as many a long record of law survives to show. Evelyn, in the diary he kept in 1643, describes the fair at Rotterdam as "so furnished with pictures, especially landskips and drolleries, as they call these clownish representations," that their number amazed him. He adds—"The reason of this store of pictures, and their cheapness, proceeds from the want of land to employ stock; so that it was an ordinary thing to find a common farmer lay out two or three hundred pounds in this commodity. Their houses are full of them, and they vend them at their faires to very greate gaines." That which common farmers did, a prosperous miller may have done, and Herman of the Rhine's evidently flourishing position may have been as largely due to dealing in pictures as to grinding corn, the more particularly as he must have known the importance of such trading through a flourishing relative of his own, one James van Svaanenberg, who lived close by at Leyden,—a prosperous painter of pictures well known at the annual fairs of the Hague and Amsterdam, although nowadays we can find no relic or record of his works. It is not hard to imagine the boy Rembrandt standing open-mouthed and open-eyed beside the easel of this famous relative, watching him while at work, or talking about art with his apprentices in the painting-school, secretly longing, perhaps, to join a fraternity in such high esteem by whom honour and riches appeared to be won in so pleasant a path.

But Herman van Rhyn had his own views about the future of his only son. It was his ambition to make Paul a great scholar, and so in due time the boy was sent to Leyden, the Oxford of Holland, a city famous for its college, schools, and other institutions for learning, where, for aught we know to the contrary, he may have resided in the house of his relatives the Svaanenbergs. It is very probable that he did, for the scholars all had lodgings in the fair city.

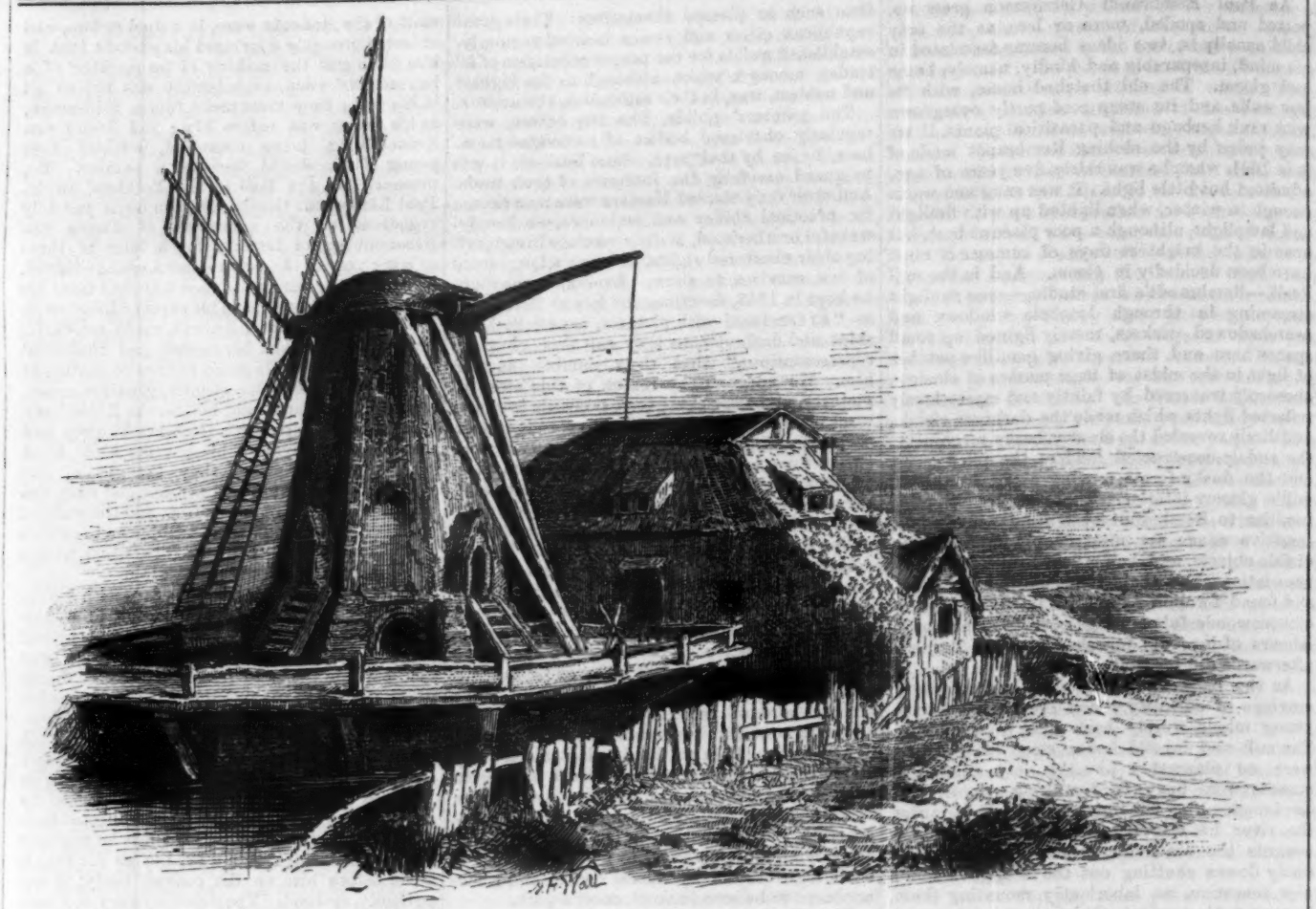
A pleasant picturesque place was Leyden when the boy Rembrandt crossed its moat, and passed into it under the ancient gate. Belted round with a double avenue of fine trees, forming a delightful summer walk for its citizens, protected with strong outer walls, with water running slowly through the middle of its clean quiet, brick-paved streets in the shadow of the trimly-kept, old-fashioned houses with pointed gables, and painted windows, it must have seemed strangely in contrast with the old tumble-down ex-powder-magazine, and the humble villages contiguous to it. The Stadhouse in the Breed Straat, blazoned with carved inscriptions commemorating the heroism and awful sufferings of the starving citizens of 1573-4, who sent word in reply to the Spaniard's summons to surrender that they would take their left hands for food, reserving their right hands for fight, to live and die free men, must have stirred the heart of a boy whose father had seen and told him so much of the great war for independence. The ancient tower, which Hengist the Saxon built after his return from England, the ancient portion of the University standing old and grey amongst the more modern erections, and its famous botanical gardens, the museums of natural history and antiquities, were all existing, and were, doubtless, all visited by young Paul Rembrandt at this time.

Rembrandt may have been well educated at Leyden, but, in accordance with republican principles, in that education religion had no part. Joining his college, he was for six weeks drudge or fag to the older students, subjected to insults and ill treatment according to custom. He listened to the Latin lectures when at college, and puzzled over the Latin announcements of the curriculum, dreaded the grave thirty-three professors of literature, philosophy, medicine, law, theology, mathematics, and physics; looked shame-faced, or sulky, or careless, when questioned at home as to the progress he was making at Leyden; shared perhaps the rollicking dissipation from which the Leyden collegians were not free; may have been concerned, as most of the students were, in a duel or two, and at last thoroughly convinced his parents that in him there was the making of no member of a learned profession,—scholarship was not at all in his way; they must make him a tradesman, as his father was before him; and James van Svaanenberg being consulted, advised that young Paul should become a painter. So, presently, in the Hall of the Painters' Guild, Paul Rembrandt Gerritszoon van Rhyn was duly registered as the apprentice of James van Svaanenberg, of Leyden, for a term of three or more years. And now came a change indeed. The indolent, careless dunce who had filled his teachers with despair, and his parents' hearts with grief, went to work with a will, made wonderful progress, astonished his master, and filled rival pupils with envy. It was a sudden revelation of power, developed with such energy, perseverance, and industry, that the old mill on the Rhine bank seemed lighted up with a fresh bright glory and delight in the eyes of his parents while, filled with hope and pride, they thought of it! Portraits of the aforesaid peasant girl were the talk of the village of Leyendrop, and the walls of that dull little home by the mill began to exhibit specimens of young Paul's ability, which no one could praise too warmly or too often.

Rembrandt remained three years with his relative the painter, and then went to a new master, Peter Lastman, in whose studio he had practised about three months, when he was seized with a desire to receive lessons of Jacob Pinas, the works of this painter being famous for his management of light and shadow, and therefore peculiarly attractive to Rembrandt. Paul remained with Jacob another three months, and then, impatient to be untrammelled and alone, he returned to his father's mill, where he fitted up a studio, and in that modest retreat devoted himself untiringly to practice. At last he matured the dominant idea of his art-life so far that it stood before him on the canvas, fairly, if not perfectly, realised. The weird mystery of gloom was there just as it was when he peered into it in the old mill, as it had awed him into pensive silence in the forest depths, as it had haunted him in long winter nights when the dim oil lamp was lighted and the fire flickered redly on the low hearthstone, casting gigantic shadows upwards, to lose themselves amongst the dusky beams and rafters. This was now mastered: he had grasped the very heart of it, could reproduce it at will. It was there before him on a flat surface, which he could peer into as if it was so many square feet of space into which the sunbeams, penetrating from some lofty loop-hole, became merged and lost in all enshrouding gloom. He was delighted and happy. It was there! It was there! Yes, there, but then, would others see it? or seeing it, would they appreciate it? Would it sell? One of his masters, or one of his fellow pupils, or some other artist friend, came to the mill studio, recognised the triumph, and strongly advised Paul to go with it to a certain picture-dealer residing at the Hague, some twelve miles or so distant. Tremblingly anxious to know his fate, Paul took the advice, and went to that stately city, carrying his picture with him, full of doubts, full of fears. The treatment he had made so peculiarly his own was so new and strange; friends saw with impartial eyes—what would the stranger experienced in his knowledge of pictures that sell say?

It was a long walk, but how much longer and more wearisome would the walk back seem if the painting was with him then? Imagine how he thought of these things when leaving the open country behind him he sat down to rest under some spreading tree on the verge of that famous beautiful park and forest of the Bosch, which was just outside the city, the birds singing cheerily to his deaf ears, his anxious mind blinding him to the sylvan beauties of the enchanting solitude, the greed of fame and money absorbing every thought and feeling.

Reaching the town at last, dusty, wayworn, and still fearful and anxious, he found himself amongst the old brick houses pacing the brick pavement, with straight rows of leafy trees overshadowing him, and the ever-present canals running straightly and lazily through some of the principal streets. He found the houses loftier, the general effect more bright, and, as became the seat of government, more stately, but without pausing to note anything,—as we can well imagine,—he hurried to the dealer, found him in, assumed an air of careless indifference with difficulty, and, with hands trembling, despite himself, uncovered the precious canvas. How his heart beat as the connoisseur proceeded



Rembrandt's Mill.

to his critical examination, and with what a wild, quick throb of delight it leaped up as the dealer, turning from the picture, asked,—"Will you take a hundred florins for it?" What a different youth he was when with that seeming fortune of a hundred florins in his pocket he came out into the brick-paved streets, bright of eye, light of heart, full of the joyous triumph, fancying all sorts of ambitious dreams realised, thinking tenderly of that pretty peasant girl who was one of his first models, desperately eager to pour out the glorious news into his parents' hearts and hers, and tell his friends in Leyden all about it. His impatience must be gratified. The distance from home was too great for him to run all the way, and walk he could not. Despite the expense, which was serious, he would startle the quiet folks beside the Rhine,—how happy and how proud of him they would be, to be sure!—by actually hiring a chariot,—ha, ha, ha!—and driving up to the dear old mill in solitary grandeur, like a nobleman, or a prince, or a burgomaster. What fun it would be! And what fun it was, for, as we have said, so Rembrandt did. But we strongly suspect that when the excitement was over, and the remaining coins were counted out into some secure hiding-place for saving, Paul hungered ruefully after the money spent on that gleeful ride, and was bitterly severe on the folly which conceived it. Whatever could have induced him to indulge in such a reckless piece of extravagance? It was worse than folly, it was wickedness!

That was the turning-point in young Paul Rembrandt's career. His first picture was rapidly succeeded by a second, a third, and a long series. The money he so carefully hoarded was as rapidly accumulating. His fame steadily increased. The Amsterdam dealers heard of him, and sent him commissions. Burgomaster Six was anxious to know him, and the demands for his works at length became so numerous that he resolved to settle and open, like other masters, a school for young painters. So to Amsterdam, in the year 1630, he went, and there his great patron, the Burgomaster Six, gave him a hearty welcome, and became his firmest and dearest friend; and there he took a large house on the Breedstaat, where pupils flocked to him from the best and wealthiest families in Holland,—where the demand for his productions defied his most desperate efforts to overtake it,—where he married, and made the most eminent men of the day his friends,—where Vandyke talked with him, and Prince Frederick Henry of Orange solicited his services, and Jeremiah Decker and Constantine Huygens held cheery converse,—and where sorrows and troubles succeeded joys and triumphs,—with all of which we have nothing to do, because they are things altogether separate and apart from the purpose of this paper on that long-since departed old house, Rembrandt's Mill.

THE NEW SPEECH-ROOM AT HARROW.

THE new "Speecher," as the Harrow people call it, on the same ground that they call the Duck Puddle the "Ducker," was opened on the 5th inst., a goodly company being present. It was built from the design of Mr. W. Burges, and has cost about 17,000*l.*, exclusive of land, and with a portion of the exterior incomplete. It is mainly of yellow brick, with red brick and free-stone dressings. The building occupies a site which was formerly a garden, on the north side of the main street of Harrow, nearly opposite to the Vaughan Chapel and Library. It stands on the side of a very steep slope, and from one point of view seems to project disagreeably into the road. In plan, it is amphitheatrical, the platform occupying the chord line, and the seats (chairs), about 700 in number, are ranged round the semicircular portion on ascending *gradius*. The ceiling over the main portion is flat, wholly of wood, but round the walls a sort of narrow aisle is formed by stone columns carrying imitation groined vaulting, so to speak, also of wood. Purists would probably object to the use of wood for such forms. However, it is a spacious, handsome apartment, apparently well suited for its purpose. It is to be hoped we were incorrectly informed that no "retiring-room" is provided. If not, the want should at once be supplied in duplicate. There is a very good organ ingeniously put away against the straight wall at the back of the platform, the keyboard, small and quite low down, standing in front of the centre of the platform, which is faced by the performer. Mr. Farmer, who rules over the instrument here, has done much to put music into the souls of the present generation of Harrow boys, and deserves thanks for so doing.

THE HOLLOWAY SANATORIUM, VIRGINIA WATER.

THIS building, now approaching completion, is intended for patients of the middle class afflicted with mental disease. Beyond the usual day-rooms, dormitories, and single rooms, the building includes a recreation-hall, 84 ft. by 38 ft., and 50 ft. high, dining-hall, 54 ft. by 30 ft., and billiard-room.

The cost of the building, exclusive of site, decorations, and furniture, will be about 150,000*l.* The architect is Mr. W. H. Crossland. The works have been executed by Messrs. Sharpington & Cole and Mr. Lascelles.

The following is a statement of the dimensions of the principal rooms:—

	Length.	Width.	Height.
	ft. in.	ft. in.	ft.
Recreation-hall	84 0	38 0	50 to ridge.
Dining-hall	54 0	30 0	38 "
Entrance-hall	28 0	23 0	15
Grand Staircase	23 6	23 6	40
Billiard-room	34 0	23 0	20
Kitchen	56 0	26 0	35
Day-rooms	30 0	20 0	12
Single-rooms	12 0	10 0	12
Libraries	21 0	12 0	12
Dormitories	30 0	20 0	12
Tower	30 0	30 0	120 to parapet. 150 to vane.

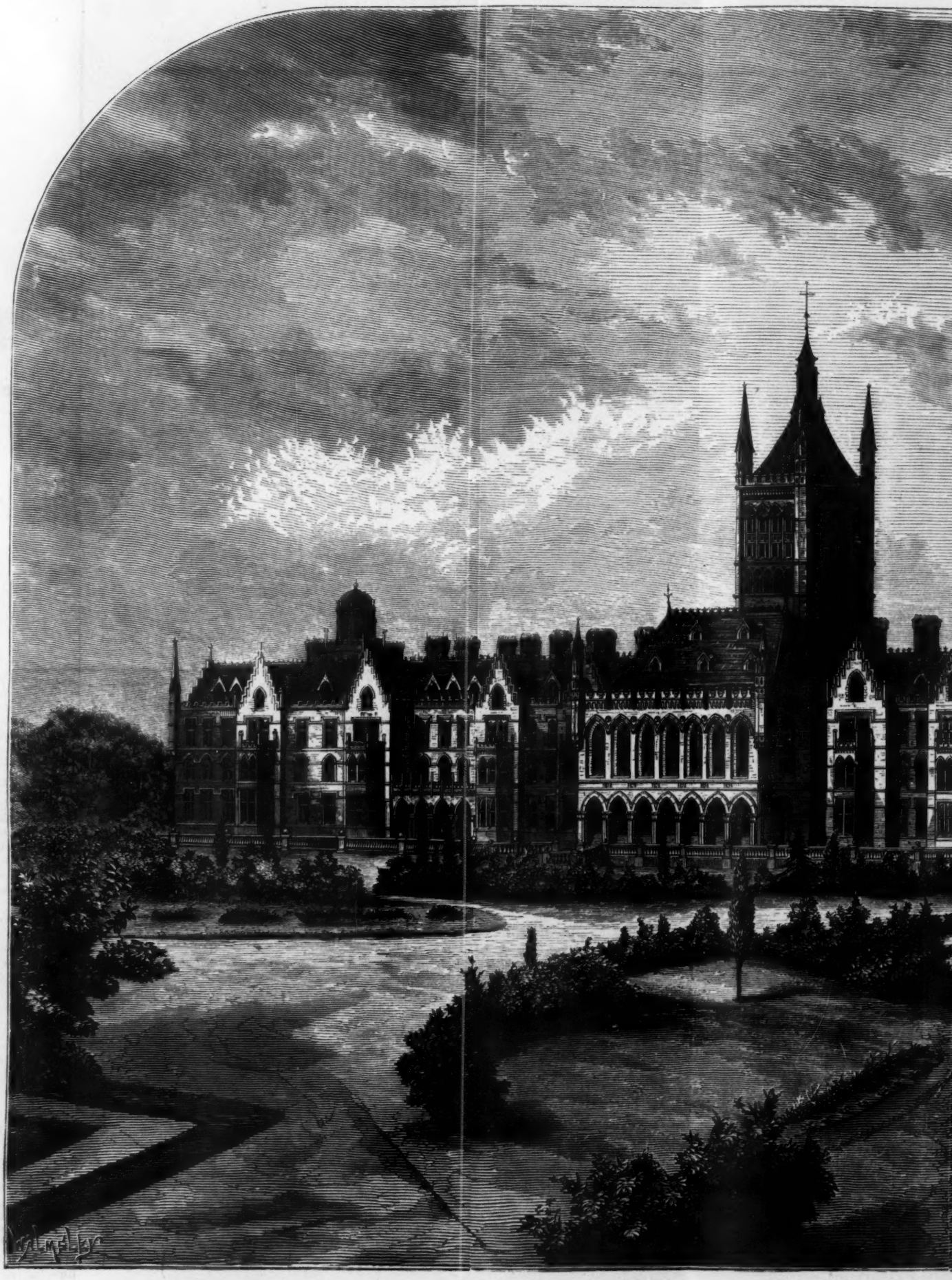
Number of	Day-rooms for each sex	.....	12
"	Dormitories "	.....	12
"	Single rooms "	.....	50
"	Libraries "	.....	4

In our volume for 1875* will be found a plan of the building, together with a view of the central portion of the design, on a somewhat larger scale than that of the present more general view.

It will be remembered that this building has been erected for the benefit of the public at the cost of Mr. Holloway.

* Vol. xxxiii., pp. 645—647.

THE HOLLOWAY SANATORIUM, VIRGINIA WATER, WINDS



THE HOLLOWAY SANATORIUM, VIRGINIA WATE

ATER, WINDSOR.—MR. W. H. CROSSLAND, ARCHITECT.

ANCIENT ROME.

MR. J. H. PARKER, C.B., Keeper of the Ashmolean Museum, Oxford, &c., has this week given three lectures on Ancient Rome, in the rooms of the Royal Institute of British Architects, Conduit-street, for the benefit of the Roman Exploration Fund. The lectures were illustrated by photographs shown by means of the magic lantern and the oxy-hydrogen lime-light, and as the darkness of the room precluded note-taking, we quote from the summaries which were prepared by the lecturer for the use of his audience. The first (Tuesday's) lecture was on

THE FOUR WALLS AND THIRTY-SEVEN GATES OF ROME.

The first wall (said the lecturer) is that of Roma Quadrata, an oblong space at the north end of the Palatine Hill; the length, from east to west, occupying about one-third of the level platform on the summit of the hill. It was originally fortified with wooden palings (*pales*—hence the name); but walls built of large blocks of tufa were soon found necessary, and were built against the cliffs, which were originally the chief defence. These walls are of the earliest character of any in Rome, and are of the same kind as those of other early cities on the hills of Italy, whether in Etruria, or in Magna Grecia (where the same kind of building material is found). Each block is 4 ft. long, 2 ft. wide, and 2 ft. deep; that is, each block is two squares, or *oblong*, or *quadrata*, and each is a ton weight, or a load for a cart, as Dionysius says. There are remains of these walls on three sides, more perfect on the north, but with parts visible on the west and the south; on the east they are concealed by the palaces of the Cæsars, built upon them and against them. The joints between the blocks are wide enough to put a cane or finger between them, because at this early period they were split off the rocks or blocks of tufa with wedges, and not cut with any iron tool. The walls here were originally 50 ft. high and 12 ft. thick, and they rest upon a ledge of the rock cut for the purpose, and forming a lower platform, called the Germalus. Below that platform there was a second cliff, and at the foot of that the great foss, which was an important part of all early fortifications; and in these fosses of the time of the kings, the streets of the republic and the early empire were made. But on the southern side of the Roma Quadrata the great foss belongs to the upper wall only, and is cut across the middle of the hill; and the wall that remains on this side is of rather later character than on the other. The earthworks of this early period in the history of the world are on a gigantic scale, and are constantly taken for the works of nature everywhere. In Rome the hand of man is more clearly visible than usual elsewhere. The great foss across the hill was 200 ft. wide and 40 ft. deep, and it is not surprising that Signor Rosa thought it a natural valley; but there is no stream of water through it; and at the end of the first century of the Empire, when the Roman senate and the emperors wished to have a magnificent palace on the Palatine, for use on State occasions, they filled up this great foss by building rude walls of foundation across it, and throwing vaults from one cross-wall to the other, in order to make a level platform on the top sufficiently large for their ideas of what the State palace should be. No architect could have proposed to fill up a natural valley by building walls across it, nor is it likely that the two sides of the hill could have been on the same level; whereas the tufa rock is near to that level on both sides, and the great foss has been cut out of it. Roma Quadrata was the original settlement of the colony from Alba Longa, who were called Romans, and it afterwards became their arx, or citadel, for a time, until the union with the Sabines, when the Hill of Saturn was made the Capitol of the united people.

II. The Second Wall of Rome was that which enclosed the two hills (Palatine and Capitoline) in one city (as Dionysius says), under the two kings, Romulus and Tatius, who were called Quirites (as we are told by Festus). This wall has only recently been understood, but it now can be clearly traced along the whole line, as there are considerable remains of it at intervals. The most perfect part has been used as the eastern wall of the Forum of Augustus, but it was not built by him, and no such lofty wall was required to enclose a market-place. The Temple of Mars Ultor, built by Augustus in this Forum, is evidently built up against this wall, because it stood there. Some excavations which were made for me in the Via di Marforio, at the foot of the Capitoline Hill, at the east end, showed the starting-point of this Second Wall; and there are some curious early remains of it behind the houses, not used by Augustus. The wall of his Forum, built of travertine, with niches for statues in it, is built up against the remains of a much older tower; and the wall of a temple in the Forum Transitorium of Nerva, between these two Forums, is built into the wall of the old tower of tufa, at one-third of its height and of its thickness. On the outside of this Second Wall of Rome the remains of the wide and deep foss can be clearly traced; the tops of the arches, through the foot of the wall from the fossway to the Forum, are visible. The pavement of the existing street, made over the foss, cuts them off in such a manner as to show that the level has been raised about 15 ft. A little further to the south this great foss cuts off the Velia from the Esquiline Hill, from which it was originally a promontory; but a fort on that promontory would have commanded the approach to the principal gate of the Palatine fortress: it was therefore necessary to take possession of it, and cut it off from the other hill, and from that time the Velia was reckoned as part of the Palatine, being a necessary part of the fortifications. This part of the great foss is now called the Via del Colosseo. The great foss then turns to the west, in front of the north-west end of the Colosseum, and this part of the wall supported the platform of the Summa Sacra Via at its lower end; the tufa blocks have been carried away and used for the foundations of the Colosseum, but the marks of them remain distinctly visible in the mortar with which the concrete wall was covered that had been built up against it. The wall then passed under the south end of the Palatine Hill, where it has also been removed for the same purpose. It then turns north, and along the west side of the Palatine, and in that part there are remains of it against the lower cliff, behind the modern houses, and of two towers of it at the north-west angle, now under the church of S. Anastasia; it then went across the south side of the Forum Boarium to the Tiber, and on the bank of the river it was continued, and bears the name of the Pulchrum Littus, as far as the west end of the Capitoline Hill, and a branch connected it, now destroyed to make room for modern houses; this completes the circuit. The great fossæ just described round the city of the two hills were, in all probability, called the Fossæ Quiritium, after the Quirites, Romulus and Tatius. Festus is the authority for both of these names.

III. The third wall of Rome was that of Servius Tullius, which enclosed the seven hills in one city, and this continued to be the city of Rome until the time of Aurelian in the third century of the empire, or for about seven hundred years. The city of Rome was as distinct from Rome as the city of London is distinct from London. But Servius Tullius did not build a continuous wall, as is commonly said; he made use of the previously existing fortifications on the seven hills, and combined them into one city, by making a short agger (that is, a high bank of earth faced by a wall, and with a foss on each side of it) as high up the valleys as he could, in order that the old fortified promontories on the hills might defend the approaches to the gates of his city. I ascertained this in the first instance in 1869, by finding the remains of the Porta Capena, the great southern gate of the city, quite at the top of the valley, between the Aventine and the Cœlian. I have re-opened this in 1877, and propose to take a lease of it for four years, to keep it open for that time. It is in a line with the northern cliff of the Pseudo-Aventine, which had the wall built against it. All the modern plans of Rome put these connecting *aggeres* at the mouths of the valleys, but there is no trace of one in that situation in any instance. On the eastern side of Rome, the three *colles*, as they were called, to distinguish them from the *Montes*, were only promontories from the high table-land on that side, which is level with the tops of the hills; therefore, as they afforded no natural cliffs for defence, he made his great *agger* or bank nearly a mile long, 50 ft. high, and perhaps 100 ft. wide at the base, faced by a wall 50 ft. high and 12 ft. thick, the bank making a sort of artificial cliff,—the usual defence of the period. A great part of this bank and wall has been carried away to make room for the railway station, and part of the additional lines for the goods traffic, and for the square blocks of the new city of Rome, according to the plans of Baron Haussmann. I have preserved photographs of the most important parts of it. The Quirinal, the Cœlian, and the Aventine had each been separately fortified, between the time of the city of the two hills and that of Servius Tullius; some of the old tufa walls still remaining are not in the line of his wall, one of them, on the Cœlian, is in the garden of the monks of S. Gregory, opposite to the Palatine, and one of them on the Aventine is also within that line. On the Quirinal also a considerable piece of the tufa wall of the kings was made visible in 1869 in making the new road up to the Quirinal Palace, which is probably on the site of the Capitolium Vetus. The old wall is now concealed by a brick wall with niches in it. This is far within the line of Servius Tullius. There are two remarkable forts, or promontories, to defend the gate in the valley between the Aventine proper near S. Prisca, and the Pseudo-Aventine near S. Sabba, which do not belong to the time of Servius Tullius, but are earlier; this is called the wall of the Latins, who were settled on that hill after the conquest of Alba Longa. There was no outer wall to the Aventine, and therefore no *pomœrium* to it; but there was an important outer wall of *enceinte* on the eastern side of Rome, commenced by the Tarquins, with the Prætorian Camp to the north, and the Sessorium at the south end. This great wall was left incomplete, in consequence of the popular rebellion against the enormous labour required of the people. The city of Servius Tullius was seven miles round, and the outer wall would have been thirteen.

IV. The Fourth Wall of Rome was that of the Emperor Aurelian, begun A.D. 275, but not completed in his time. This truly magnificent wall was thirteen miles long, and had bastions or towers at short intervals, with corridors for the sentinels' path within the wall from one tower to the other. On these bastions the catapults and the balistæ were placed; and there are stone steps for the sentinels to go up to the top of each, which would enable a comparatively small number of men to defend the point attacked; they could pass in perfect safety from one point to another. There is only one of the gates of the time of Aurelian remaining, the Porta Asinaria; many of the gates were very strongly fortified by Stilicho, the great general under the Emperor Honorius, about the year 400, and several of these remain perfect; one of the most complete is the Porta Pinciana, which belongs to the French Academy, and is not in use. It is at the west end of a long piece of the wall, nearly half a mile, which also belongs to them, with their garden inside of it, upon the bank and on the Pincian Hill, which formed part of the defence, with the Muro Torto at the north-east corner.

That there were thirty-seven gates to Rome in the time of Pliny is clear, and his account explains how they were arranged. He says, there are twelve gates only to be counted once, although in measuring the distance from the Milliarium Aureum in the middle of the city and in the Forum, they were to be passed through twice; there are eighteen in the outer wall, of which four remain still, earlier than the time of Pliny. This makes thirty, and the remaining seven were in the old hill fortresses not in use in his time, as he says. The same number of thirty-seven gates is given in the Regionary Catalogue of the fourth century, and can only be explained in the same manner.

The subject of the second lecture, delivered on Wednesday, was

THE FORUM ROMANUM, VIA SACRA, AND COLOSSEUM.

To understand properly the existing remains on the site of the Forum Romanum, it is necessary to begin with the great public building which forms the north end of it, by whatever name it may have been called in early times; it was equivalent to the town-hall and mansion-house of other cities, and contained all the public offices in the time of the kings and of the Republic. In the time of the Early Empire a change was begun, and some of them were transferred to the Palatine, but this is not to our present purpose. This great building is now called the Municipium, because it contains nearly all the public offices of the municipality in the upper part, and always did so; but under them it contained also the Ærarium, or Treasury; the Tabularium, or Record Office; and behind that the Senaculum, or Senate-house, at the east end.

This great building is not quite due north of the Forum, but nearly so; the north point is at the south-eastern corner of it.

The Capitolium.—To Londoners who do not know Rome, perhaps some idea of this great building and its history may be given, by comparing it with Somerset House, which was also originally a palace turned into public offices. Both are built upon a steep slope, and both are massive square buildings of several stories, and containing many different offices. Suppose that the principal market-place of London was called the Forum, and was held on the level ground between the south front of this building and the Thames; that close to the ground, at the lowest level, were two doorways, one towards either end, actually made through the foundations, and opening to steps under the lowest floor of the building; that these steps are continued at the back of the first and second floor, and both ascend to the same level on the third floor; but one goes up straight to it, and has no doorway into it until it arrives there, and these steps are unusually steep, and go straight up to the top; the other steps, on the contrary, are remarkably easy, and provided with several landing-places, in order to make the ascent as easy as possible for old people. This one, which is at the east end (towards Strand-lane), also has another doorway and passage into it on the ground-floor (but this is one story above the doorways); this floor was under the terrace, and divided into a number of small square chambers, which were the bank vaults, the place where the money was kept—in Rome, the *Ærarium*, or Treasury. On this terrace also would be an arcade, and against the back wall would be placed a series of bronze *tablets*, on which were recorded the names of the lord mayors and the chief public officers of each year, from the foundation of the building, forming the Records of the City. This corresponds exactly to the Tabularium at Rome. At the west end of this is the entrance to all the offices on that level or above it, but not to the bank vaults. At the east end the entrance is on that lower level, and leads by a passage to the first landing-place in the stairs of the senate-house or *curia*, which is on the level of the third floor, behind and above the level of the Tabularium, but with no communication. The clerks of the Treasury, who had to go up the steep steps to their office, and kept all the accounts, might write cheques, but could not get at the actual money without going through the senate-house, or at least the vestibule of it, through which the stairs pass; so that the Senate had complete control over the actual money,—the bronze coin with which the army was paid. The doorway of the Senate-house or Curia was at the south-east corner of the building, 20 ft. above the level of the market-place, and at that point a herald stood to make proclamations to the people below on certain occasions, especially to proclaim midday, as there were no clocks in those days, and he could be distinctly seen and heard from that point, which is exactly the north part of the Forum. Immediately in front of this door was another flight of steps going straight down to the great prison (which would in London be at the bottom of Strand-lane); these steps were visible from the Forum, and were called the Gemonian steps. The prisoners were exhibited there when condemned to death, and sometimes their dead bodies also. At the opposite corner (where Waterloo Bridge now stands) would be another flight of steps, but rather higher, as it extended to the level of the Tabularium and over the Ærarium, whereas the doorway of the Senate-house or Curia was on the level of the floor of the Ærarium. These steps had to go up at least 30 ft., passing over the level of the doorways first, then that of the Ærarium. Perhaps it went higher,—as that was called the *hundred steps*, they may have gone to the Area-Capitolina (corresponding to the Strand, which is considerably above the level of the terrace). An orator could stand on the upper steps near the door of the Tabularium, and speak to the people in the market-place below. The upper part of the building above the arcade on the terrace was entirely of wood, but the arcades were continued along the west side on that level, or ascending according to the level of the ground, and there are remains of both these arcades of very early character. Translators have misled English people by translating the word *porticus* as *colonnade*: it may be translated either arcade or colonnade, but in this case it must have meant arcades, by the remains.

The Temple of Concord is at the north-east corner of what is now called the Forum, but was originally within the wall of the Capitoline fortress, and was not reckoned as part of the Forum until that wall was destroyed by Tiberius; of this the basement or *podium* remains, with constructions of three periods in it; on the surface there are remains of the veneer of marble of the time of Tiberius, who rebuilt it. The foundations of the upper walls remain on all sides; in front, on the top of the steps, which were a triple flight, is the marble sill of the doorway, with the sockets for the pivots in which the bronze door worked (for that door had no hinges, but worked on pivots, as the great heavy bronze doors of the Pantheon still do). The back wall is built against that of the Tabularium; on the right or east there are remains of the wall, extending nearly to the sloping path of Michelangelo, but not quite; there is an interval of a yard or two on the platform on the same level with the top of the steps. This is the site of the Græcostasis, which is almost covered by the modern sloping pathway. On the western side, the platform is about 20 ft. above the pavement of the Clivus Capitolinus, which passes in front of it. A passage passes under this basement near the west end; the wall of the passage is faced with *opus incertum* of the time of Sylla. This passage led to a doorway now closed, cut in the tufa wall under the Ærarium. There is a deep narrow interval on the west side, between the basements of the temples of Concord and of Saturn. The temple of Concord was often called the Senate-house, because it was the vestibule of it, and the senators assembled there; and despatched ordinary business there; but when they assembled in any large number, they adjourned to the Senate-house, or *curia*, behind it, in the great building. In the same manner the temple of Saturn was often called the Ærarium or Treasury, because a doorway at the back of it in the wall of the great building, the head of which is still visible, led to the steep flight of steps for the treasury clerks to go up to their office on the third floor of the building. To the left, or west of the temple of Saturn, there is also a deep narrow interval below the level of the platform of this temple; and on the opposite side a series of square shops of brick, called the Schola Xanthi, the place where the scribes sat to write for the people (named from the person who built them, which was preserved upon an inscription at the time they were found); these brick walls were originally cased with marble or bronze. Over this, on the platform, is the elegant light colonnade of the Dii Consentes, or household gods of Rome, whose statues were placed between the columns. These columns were found in fragments, and were cleverly put together by Canina about 1830, on the old bases; but they had evidently extended further to the west, under the modern bank of earth on which the road passes from the Forum to the Piazza del Campidoglio, on the higher level. In front of this light colonnade is the temple of the seven Ionic columns, which I call the temple of Vespasian, others that of Saturn; both were rebuilt in the third century, but the old names were retained. There is no place for the money under that temple, and it is outside of the wall of the old Capitoline fortress. The temples of Concord and Saturn were within that line, and were called in the Capitol in the time of the Republic, before the wall was destroyed. It was standing in the time of Varro, with the gate of Saturn in it; this was a double gate where two roads met, as was frequently the case with the gates of Rome, and the foundation of the wall between the two gates remains visible, with pavements of the time of the Republic on one side, and of the Empire on the other. One was the Via Nova, a new road in the time of Sylla, of which the pavement is flat and little worn, the other has the stones rounded, and in the time of the Empire, in the third century, it had to be renewed and raised; it is the Via Sacra, and the end of it. In going towards the Comitium, some remains of one of the three rostra, and of the base of the Milliarium Aureum, are visible, just to the west of the fine arch of Septimius Severus. The sculptures on this fine arch are too much decayed to be made out, but they can be seen to represent some battles and a triumphal procession. From this arch we pass under the modern road, supported by a brick-vaulted passage, and in this passage is part of a gigantic marble column, lying horizontally, probably where it fell, or nearly so. We then emerge into the open space of the Comitium, close to the column of the Emperor Phocas, placed there in the seventh century, but really taken from the temple of Saturn; it is identical with the other three that remain in their places. This was the nameless column of Byron; the inscription on the base was buried when he wrote. The pavement of the Via Nova, down the middle of the Forum, remains nearly perfect; it goes straight to the temple of Vesta, the basement of which is visible just beyond the limits of the Forum, and at the back of that some of the steps that led up to the Porta Romana were visible when this excavation was first made, but were destroyed or concealed by Signor Rosa, perhaps because they did not fit his theories (?). Other steps at the top, close to the gate, were also destroyed by him about 1868, when the excavations were made in that part. The Via Nova was a zig-zag road for the chariots from that gate to the Forum, through the arch of Janus, and therefore a long way round, and for that reason steps for foot-passengers were made descending direct from the gate to the Forum. The Via Sacra continued down to the western side of the Forum in a straight line from the gate of Saturn, the entrance from the Capitoline fortress, passed under the arch of Septimius Severus and the modern bank of earth, to the steps of the temple of Antoninus and Faustina, where it is now visible. Turning to the right, or west, from the column of Phocas, we have first the pavement of the street down the middle of the Forum, and on the further side of that three steps up to the level of the platform of the great Basilica Julia, which occupies all that side of the *comitium*, or open place for meetings. We also see a long series of brick bases entirely modern, erected by Signor Rosa about 1870, and he even had in many places to cut through the marble pavement of the third century to insert these bases, as can still be seen by the modern stucco pavement which is used where the marble has been taken away. No doubt these bases are believed by Signor Rosa to be exactly placed to show the plan of the old basilica; but this is entirely conjecture, and may be right or may not. We have no real authority whatever on the subject,—no ancient plan or view of this great building. A fragment of the marble plan of Rome was supposed by Canina, followed by Rosa, to fit this site; but, as he put together two pieces on two different scales, this is still doubtful authority for such an enormous restoration. The site is, however, proved beyond all doubt, by the words of Augustus in his will (called the *Momentum Ancyranum*, because the only copy that has been preserved is at Ancyra). In this he says, "I have enlarged the Basilica Julia so much, that what was the length is now the breadth." At the north-west corner of this great platform we have fragments of some walls and arches of travertine, of the time of Julius Cæsar, pointing across the north end of the platform, that is from west to east, the direction of the platform being from north to south, and this again agrees with the words of Augustus: he says, "it now extends from the temple of Saturn at one end, to that of Castor and Pollux at the other." We know that the one was close under the Tabularium, the other must therefore be the one with the celebrated three columns, so long an object of dispute and discussion. We have no representation of the building, and Signor Rosa studiously destroyed the ruins of the vaults of the upper story, which were lying on the pavement when it was first excavated. He has, however, put together one pier probably correctly, and this shows that there was a double arcade, the upper one serving as a gallery, probably with shops, and places for the people to see what was going on below in the Comitium. The fixing the site of this great basilica settles several other points. Suetonius tells us that Caligula used the temple of Castor and Pollux, or the Dioscuri, for the vestibule of his palace. The fine ruins of a great palace of his time (the lower part concealed and disguised by modern buildings erected against them) at the foot of the Palatine, and within the boundary-line of that fortress, but on a level with the Forum, at the west end of the palace of Caligula, are remains of his bridge. The podium, or basement of this temple, is of the time of the later kings; part of the original building, the temple, has been rebuilt from the foundations, but the foundations themselves were not rebuilt, and the whole of this massive base was considered as foundations only. This site plays an important part in Roman history.

The concluding portion of this lecture was

devoted to a minute description of the arrangement and construction of the Colosseum.

The third and concluding lecture of the course, delivered on Thursday, was on "Tombs in and near Rome, and Catacombs." Of this lecture we will give the substance next week.

LETTERED IGNORANCE.

THERE is nothing in the present day which more imperils the destinies of England than lettered ignorance. By *lettered ignorance* is signified the intellectual condition of a large section of the British public which has passed through either private school, public school, or college, and the mechanical process of a liberal education, —a process which, for anything but automatic ends, is utterly useless. The lettered ignorant is a class which will go on through the whole course of its clock-work demonstration repeating and shuffling the notions to which it has been set without having the slightest power of thinking for itself, of discovering, of originating, or, in short, of in any way assisting the common weal. Its place in nature would rather seem to be that of embarrassing and impeding, by the overwhelming force of its numbers, the men of thought and action who could really render the State some service, and place it in the intellectual van of the nations. The lettered ignorant are gregarious in their nature, and follow the bell-wether, ba-aing with a persistent but irritating sameness here, there, and everywhere. The lettered ignorant swarm in every profession, betray progress, science and art, and indirectly the nation itself.

The true intellectual chiefs of all the professions feel more or less the incubus of their lettered ignorant. But of all the professions, none experience to a greater extent the swarming and the blighting of this Colorado genus more than that of the fine arts. Lettered ignorance has itself promulgated the notion that the principles of art have no solid foundations, no exactitude, and that therefore art is the subject of all others upon which it is specially qualified to discourse. The art-criticism of the day is, to a great extent, supplied by this class. Crammed with technical terms, which he scarcely understands, a member of this class will enter some one of the many exhibitions for the purpose of reviewing it, and will, in all probability, commence his notice with a lament on the degeneracy of art. He will complain of the absence of any works of a high order, and will inevitably pass unnoticed the few specimens of that class which adorn the walls, and will as inevitably praise, with extravagant praise, works of an inferior kind, of an order which in his prefatory and general remarks he had condemned. How should lettered ignorance do otherwise? It has no real perception of the difference between good and bad, between the right and the wrong in art; it only mechanically bandies the set phrases with which it has been *crammed*. It will gather round, beland, bolster up, and foist upon the public, to the disparagement of true artists, some quack who parades some eccentric phase of art, some mannerism, which, from its peculiarity, lettered ignorance necessarily concludes must be the true and the beautiful. This class has not the slightest notion that the study of the principles of art is of all studies the most difficult,—the one of all others which requires the most subtle power of analysis, the keenest logical acumen; and that as these qualities are either entirely deficient, or are only manifested in their lowest degree in the lettered ignorant, it is a subject entirely beyond and out of their reach.

As this large class really knows nothing about art, its interest is concentrated on the painters and sculptors of its own kind; its tenacity is devoted to the promotion of a clique, and at the same time to do its little best to undermine and ruin English art, and to render it ridiculous in the eyes of Europe. The few amongst us who really think, survey this existing state of things with dismay. "Where," they ask, "are the English painters who exhibit any grandeur of thought, any intellectual purpose in their works?" If there be some few of this order they know very well that these receive no encouragement, and that the condition of the fine arts, failing this intellectual vitalising power, is sinking day by day lower into the depths of whim, incompleteness, and instability.

But this condition of lettered ignorance does not, as we have said, affect art only. The paralysis which benumbs the extremities of the national life also affects it to its very heart and centre. If, indeed, there were full life and vigour at the fountain-head of affairs, the state of art at which we are railing would not exist. But just as in politics the interests of party override national interests, so in the professions of painting and sculpture the interests of cliques override the interests of art. The inevitable result of pushing minor interests before those of far higher importance is decadence at every point.

Unfortunately, lettered ignorance does not diminish either vanity or ambition; but, on the contrary, seems to increase them. We have, therefore, constantly before our eyes the dread spectacle of men who, having nothing to recommend them but either their position or wealth, assuming to lead in public affairs, or taking up matters which they do not understand, only to mislead those whose lettered ignorance is on a level with their own, and who not only mislead, but also misapply and waste the national resources; whilst men who really understand the subject shall utterly fail to get a hearing.

Position, in the eyes of *lettered ignorance*, is everything. Lettered ignorance worships it and takes it to be the real thing, to be true greatness,—the outward and visible sign of immortal fame; whereas the thoughtful full well know that by far the larger number of men whose names are emblazoned with an array of letters, have been thus arrayed by the lettered ignorant themselves, and that therefore they are no abiding criterion of excellence, and that probably by far the greater portion of those who bear these affixes are doomed to utter forgetfulness, whilst men who now hold no position, are scarcely recognised, and who may be poor and neglected, will have their names fully inscribed on the muster-roll of fame. How often must men of this stamp exclaim in *sotto voce*, as they see the lettered ignorant passing in procession, in all the pageantry of life, bearing their titles, their diplomas,—the everything, in short, but the essential qualifications for greatness,—how often, I say, must they exclaim, "Poor fools!"

The wealth of the country may bridge over the disasters caused by her lettered ignorance if men will but wake to the necessity of inaugurating a new state of things; if they will but learn what the word "education" should mean, and not mistake a shadow for the substance; if they will but resolve to place lettered wisdom where they now almost invariably instal lettered ignorance.

W. CAVE THOMAS.

INSCRIPTIONS AS MURAL DECORATIONS.

SIR,—The enthusiastic writer of "Wanderings and Questionings in Architecture and Art" has devoted a recent essay chiefly to a consideration of the above subject. Although, as he admits, he has allowed considerable "rein to his fancy," there is, notwithstanding, much to be advanced in favour of such a scheme of decoration.

There is only one observation, so far as I am capable of judging, to which exception can be taken; and as upon the issue will depend in a considerable degree the success or failure of the proposition, I may be pardoned for attempting to criticise that which in other respects is highly commendable and worthy of every consideration. The writer observes that,—"To both the eye and imagination, probably, Hebrew and Greek sentences would have a greater charm than English or Latin. They would have a greater air of mystery,—a legitimate object in art, and would form a loftier element in decoration from being in the original and more sacred languages."

This raises a question which has been but recently discussed with considerable warmth in connexion with the subject of restoration. I refer to the non-desirability of introducing such matters and things into a building as shall tend to obliterate evidence which constitutes the building an historical record. Now, I contend that the historical date of a building should be discoverable as much from its inscriptions as from the peculiar characteristics of architectural style. Nations of antiquity when placing inscriptions upon their palaces and public buildings invariably adopted the vernacular tongue. Why should we not, therefore, act in the same public spirit, without degenerating into mere servile copyists of either the Assyrians, Egyptians, Grecians, or Romans? Is not our so-called *vulgar tongue* capable of conveying ideas with a sublimity, grandeur, and form equal to the classical languages? It will probably be asserted that during the zenith of Gothic art Latin inscriptions were the rule and not the exception. It must be remembered that during that period the Bible itself was a sealed book, and therefore it is not to be supposed extracts would be rendered in the vernacular. The same arguments which were levelled against the Latin Bible may now be turned against mural inscription in an unknown tongue.

The writer of the article objects to symbols, believing that inscriptions are preferable. So they are, provided they are rendered intelligible. Symbols are invariably ornamental, and continue so after their symbolical utility is lost; but this is not the case with an inscription. Its power of giving pleasure and stirring up the finer feeling and emotions does not rest with the inscription, but with the capability of the individual to understand it. Byron says,—

> "Words are things;—and a small drop of ink
> Falling, like dew, upon a thought, produces
> That which makes thousands, perhaps millions, think."

These words convey the very intent and purpose of mural inscriptions. A wrong application of ink or colour will result in confusion and mystification, but not enlightenment.

The walls of a cathedral incised with Greek or Latin inscriptions, although very agreeable to the *savant*, would be incomprehensible to the majority of people. Words, pregnant with importance, which ought to appeal to our noblest sympathies, would be unheeded, not being understood. If we are to have inscriptions, let them be such as can be read by the millions, and not only by a favoured few.

The adoption of such a method of decoration would truly constitute *sermons in stones*, and be conducive to mental refinement and elevation of thought. Theological, scientific, and philosophical truisms might thus be fixed permanently before the public, and such a system might develop into no mean auxiliary to the educational schemes which have marked the nineteenth century.

In arts, we should do well to imitate as far as lies in our power the divine example shown to us in Nature, where all the marvellous beauties are lavishly displayed, equally for the gratification of the learned and unlearned. Does the fresh and balmy air of heaven blow upon the Hebrew scholar and refuse to cool the "sweating brow" of the labourer? Does the rose store up its perfume for the botanist alone, and deny its grateful fragrance to the poor and wretched; or the sun to shine alike upon the rich and the poor, the happy and the discontented? Whilst fully conscious of the many advantages of mural inscriptions, I fail to discover what desirable result would follow from wrapping in a mysterious and impenetrable shroud the sublime utterances of Scripture, the glorious precepts of philosophy, and the grand scientific results of human enterprise.

A good selection of mural inscriptions, suitable to the buildings in which they are placed, would be a worthy concession to the public, and at the same time would stamp architecture with the characteristics of the age in which we live.

JAMES GEO. BUCKLE.

Canterbury Cathedral. — Mr. William Morris, as hon. secretary to the Society for the Protection of Ancient Buildings, has addressed to the Dean and Chapter of Canterbury Cathedral a protest from the committee of his Society against the reported intention of the Dean and Chapter to remove from the choir the ancient stalls. The Society considers such a course of action injurious to the history and art of the country. The memorial proceeds:—"The Society begs to point out that this woodwork is remarkable for its intrinsic beauty, and although of comparatively late date, is a noble example of the art of its period, and in no way interferes with, but rather adds to, the architectural effect of the building. It is stated that these stalls conceal portions of more ancient work, part of the fittings of Prior Eastry; but as the work of that eminent architect is left in a very fragmentary condition, and any restoration must be, on the whole, conjectural as to design, and modern as to workmanship, the Society feels that it would be a loss, rather than a gain, to remove, for the purpose of such restoration, a beautiful and untouched work of a former age. The Society takes this opportunity of deprecating any attempt at imitating the supposed condition of the choir at any past period of its history, being convinced that, however lamentable former destruction of ancient fittings and decorations may have been, the restoration of them is impossible, and can only lead to a condition of things still more grievous to all lovers of art, and still more destructive of the history and dignity of the cathedral."

ROYAL ALBERT HALL.

THE annual general meeting of this Corporation was held on Tuesday last, the Hon. Lyon Playfair in the chair. The following report of the Council having been printed and circulated, was taken as read: —

The Act to make better provision for the maintenance of the Hall (39 & 40 Vict., Sess. 1876) came into operation on the 23rd Feb. last, and will exercise a very important influence on the prosperity of the undertaking.

At the general meeting provided for by the Act, held in February last, for the purpose of bringing before the Corporation the estimates for the current year, the council considered it desirable to recommend for the year 1877–8 the maximum rate of 2*l.* per seat fixed by the Act, and an appeal was made to the general meeting for that amount. The meeting passed the vote without a division, and the whole of the rate due from the seat-holders has now been collected, with the exception of about 120*l.* which is partly due on seats held by trustees and proprietors who are at present absent from England.

The accounts are not yet materially affected by this levy, the larger portion of the amount collected being still in the hands of the trustees appointed for its expenditure under the Act.

Since the 30th of June, 1876, thirty-eight important concerts and oratorios have been held in the Hall: eleven of the oratorios were given by the Royal Albert Hall Choral Society, which, for the first time since its formation in 1871, has proved itself to be self-supporting. In order to secure these performances, a guarantee fund, promoted by certain members of your council and others, was provided to hold the Choral Society harmless. So far, however, from a resort to this fund being necessary, a profit was realised, which has been devoted by the guarantors towards the formation of a new library.

The most noteworthy musical event during the year in connexion with the Hall, and indeed in this country, has been the Wagner Festival, which took place in May last. Eight concerts, at which music composed exclusively by Herr Wagner was performed, and conducted by the distinguished composer himself, were given. The result has been considered brilliantly successful from a musical point of view, and was satisfactory to all the parties concerned in it.

Efforts have been made to utilise different parts of the building since the last annual meeting.

Two bazaars for charitable purposes, and an exhibition of elementary needlework, have been held in the east lecture theatre and the crush-rooms. The competitive models for the Byron national testimonial have been exhibited in the west crush-rooms, and a grand bazaar has been held in the arena of the Hall.

The Cambridge higher local examination for women, at which 235 candidates entered for examination, was held in the lecture theatres of the Hall at the same time that a bazaar was being carried on in the arena, and served to show that independent use of different parts of the building may be made at the same time without inconvenience.

It is to the extended use of the Hall and the apartments and spacious galleries attached, that your council direct their continuous attention, and with regard to which they invite the earnest co-operation of members of the corporation. The various directions in which the building might be made available to the great advantage of the public and the corporation have been pointed out in previous reports, and should be borne in mind by those who are interested in the welfare of the institution.

One of the most satisfactory subjects on which the council have to report is the establishment of the fact that the Hall can be used, with singular advantage, for the purpose of large meetings for lectures and addresses. An experimental sounding-board, on the principle of the one now in use at St. Paul's Cathedral, was made at the suggestion of a member of your council, and with the valuable assistance of Mr. Penrose, surveyor to the Dean and Chapter of St. Paul's, who generously gave time and attention to the work. At a gathering, held in aid of the Home for Little Boys at Farningham, in Kent, speeches of considerable length were made. The result proved that speakers can use their voices in the Hall without fatigue, and that an audience of from 7,000 to 8,000 persons can be satisfactorily addressed.

The council are ready to afford facilities to any competent lecturers on science, literature, or art, who may desire to avail themselves of the capabilities of the Hall.

A Kindergarten class, on the model of those in vogue in Germany, has been established in one of the crush-rooms on the balcony floor.

Negotiations are in progress for the use, as an art studio and class-room, of rooms on the balcony floor, and it is confidently hoped that the time has come for the permanent general utilisation of all available space in the building for the legitimate purposes for which the Hall was built.

In conjunction with the Royal Horticultural Society, Saturday organ recitals, under the direction of Dr. Stainer, were given, but have been temporarily discontinued, in consequence of the Hall being engaged for concerts on Saturdays. It is intended to give recitals on Mondays.

A series of Sunday organ performances, by Mr. H. H. Statham, who generously offered his services, has been commenced, and will be continued through July.

Hereafter agreeable performances may doubtless be looked for in connexion with the National Training School for Music, which is intimately connected with this corporation.

One great need for the collection and dispersion of such large audiences as the Albert Hall will contain, is the provision of some improved means of communication between the Hall and the present underground railways. The council are glad, therefore, to find that a scheme for conecting the two by a branch line has taken a precise shape, and will be facilitated by her Majesty's Commissioners for the Exhibition of 1851. Such aid as the council can properly give, after careful examination of the scheme, they will consider it their duty to afford.

[The balance-sheet, made up and audited to the 30th of June, showed that a certain amount of outstanding liabilities had been paid off during the year.]

Public complaints are sometimes made that there are as yet no financial returns on the credit side of the account. If the Hall had been built at the expense of the tax-payers the public might have reason to complain, but it must be remembered that the Albert Hall was built by a body of subscribers (in co-operation with her Majesty's Commissioners of 1851), who participated in the wish of his Royal Highness the late Prince Consort, that South Kensington should be the site of a group of buildings devoted to the purposes of science and art. The majority of those who became proprietors, it may be safely asserted, scarcely looked for any personal return, their sole object was to erect, as they have done, a noble building fitted for State receptions, for the gathering together of large audiences for purposes connected with science and art, and for affording to the people increased means of healthful and elevating gratification; while at the same time it might be as safely said that the proprietors have received a full and complete return for the money invested.

The council will not relax their efforts to increase the opportunities for enjoyment and to make the usefulness and importance of the Hall more and more felt, and they again earnestly invite the cordial co-operation of the proprietors and the public.

On the motion of the Chairman, who briefly addressed the meeting, the Report was received.

Mr. Edgar Bowring, C.B., moved, and it was ultimately resolved,—

"That, by virtue of the power given to the Corporation by clause 20 of the Constitution to alter the day of the ordinary annual general meeting, that meeting shall henceforward be held on the same day as the annual meeting for the assessment of the seat-rate provided for by Clause 4 of the Royal Albert Hall Act, 1876, viz., 'at some time in the month of February,'—the first of such altered ordinary annual general meetings being held in February, 1878."

On the motion of Mr. Godwin, seconded by Mr. Warren De la Rue, H.R.H. the Prince of Wales was unanimously re-elected President. Sir H. A. Hunt, C.B., and Mr. Reed, C.B., were elected to fill vacancies in the Council; and a vote of thanks to the Chairman, moved by Dr. Mouat, closed the proceedings.

COMPLETION OF A NEW DOCK AT FLEETWOOD.

THE port of Fleetwood, in Lancashire, is about to be placed in a much more favourable position for both foreign and coastwise shipping than it has hitherto enjoyed. Although vessels of the largest burthen can enter the harbour,—the channel at Fleetwood being deeper than that of the Mersey at Liverpool,—the shipping trade between foreign ports and Fleetwood has, up to the present time, been of a limited character, owing to the want of dock accommodation. This has, at length, been supplied by the Lancashire and Yorkshire Railway Company, who, in conjunction with the London and North-Western Company, are the lessees of the railway between Preston and Fleetwood. During the last four years the Lancashire and Yorkshire Company have been engaged in constructing a new dock and warehouses at Fleetwood, and the works have just been finished, water having been admitted into the dock within the last few days, and it is expected that it will be opened for general shipping purposes about the close of the present month. The dock is 1,000 ft. in length, and 400 ft. in width, and contains a water area 10 acres in extent. The dock is 34 ft. 9 inches in depth, and the walls are of great strength, being 14 ft. in thickness at the base, gradually diminishing to 5 ft., which is the width of the coping. At the south end there is an outlet communicating with a timber-pond 15 acres in extent. The wharfage in connexion with the dock is very extensive, being 2,600 ft. in length, and on the west side of the dock large warehouses in three blocks have been erected, each block being 320 ft. long and 60 ft. wide. Double lines of railway encircle the dock, which are likewise extended to the back of the warehouses, and connected with the main line from Fleetwood to Preston and the principal towns in Lancashire and Yorkshire. The entire length of these several lines of railway, with their sidings, around the dock, is upwards of eight miles. There is also a lock 250 ft. in length and 60 ft. in width, connecting the dock with the estuary of the river Wyre. The ordinary water-level of the spring tides will give a depth of 24 ft. on the lock-sills; but, as the tides frequently rise to 30 ft., the depth will be sometimes as much as 26 ft. on the sills. About 400 artisans have been employed during the progress of the works, which will cost upwards of 200,000*l.* It is fully expected that the opening of this new dock will be followed by the establishment of an important shipping trade between Fleetwood and the American and Canadian ports, and that cotton and timber for the manufacturing districts will be largely imported from America *vid* Fleetwood.

Builders' Benevolent Institution.—The general annual meeting of the subscribers and donors of this charity will be held at Willis's Rooms on the 26th July, to receive the report for the past year, and to elect president, treasurer, directors, and auditors for next year.

THE SANITARY INSTITUTE.

AT a meeting of this Institute, in the theatre of the Royal Institution last week, an address was delivered, by Dr. Richardson, on "The Political, Medical, and Social Aspects of Future Sanitary Science," and also to give a welcome to Professor M. A. Chevallier, President of the Société Française d'Hygiène, and several members of that society who had been elected members of this Institute. In the course of it, Dr. Richardson urged the necessity for a health department of the State exclusively devoted to the health of the people, and another point he pressed was the necessity of having a digest of all practical sanitary laws, so prepared that any person of intelligence could understand them. Then, in the future of sanitary science, the politician must come forward more resolutely than he had yet done, in order to secure for those he governs three requisites,—pure water, pure food, pure air. It was utterly hopeless to trust to companies in a matter of such vital moment as the supply of water. It was equally hopeless to trust to the undirected action of local authorities. If we trusted to such agencies for the collection and delivery of letters by post, did any one suppose that the results of our present postage system would be attained? Yet, important as intercommunication by letter is, it was less important than the supply in due quantity and pure quality of that vital fluid which makes up three parts out of four of every human organism, and which was wanted as much by the millions who never receive a letter as by the millions who do. In this political part of "sanitation," the Government must do one of two things. It must either produce a process or processes for pure water supply, and insist on every local authority carrying out the proper method; or it must,—and this would be far better,—take the whole matter into its own hands, so that under its supreme direction every living creature should, without fail, receive the first necessity of healthy life in the condition fitted for the necessities of all who live. As to pure air, there was no practical legislation of any kind. The air of our large towns was charged with smoke and impurity. The air of our great factories was charged with dusts which destroy life with the precision of a deadly aim. Dr. Purdon, one of the certifying surgeons under the Factory Acts, reports that in flax-working factories under his care the carders, who are all females, if they get a carding-machine at sixteen years, generally die at thirty years. Could any fact be more terrible than such a fact, that a girl of sixteen should have to live by an occupation that will bring her existence to an end in fourteen years, and to that end with all the prolonged wasting, sleeplessness, suffering, incident to the disease consumption of the lungs? If it were the fate of these doomed workers that at the close of fourteen years' work the majority of them were taken forth and shot dead in an instant, their fate were infinitely better than it is. The heart of the nation would thus be aroused, and the law in all its majesty would be put in operation to arrest the progress of the crime and to punish the offenders. Yet, year after year as terrible an offence goes on, and because the result of it is hidden in the sick-room there is no arrest of its progress, no punishment for its commission.

THE INSTITUTION OF CIVIL ENGINEERS.

FOR some of the original communications read and discussed at the ordinary meetings and at the students' meetings, and for other papers selected for publication without reading, during the past twelve months, the Council have awarded the following premiums:—Watt Medals and Telford Premiums to Mr. W. W. Beaumont and Mr. W. C. Unwin, for papers on "The Fracture of Railway Tires" and "The Resistance of Boiler Flues to Collapse"; Telford Premiums for papers on "Street Tramways," by Mr. Robinson Souttar; "The Testing of Portland Cement," by Mr. I. J. Mann; "The Emission of Heat by Hot-water Pipes," by Mr. W. Anderson; "The River Thames," by Mr. J. B. Redman; "The Transmission of Power," by Mr. H. Robinson; "The Repairs and Renewals of Locomotives," by Mr. A. McDonnell; and on "The Japan Lights," by Mr. R. H. Brunton; while the Manby Premium has been adjudged to Mr. C. Norman Bazalgette for his paper on "The Sewage Question." A Miller Scholarship of 40*l.* a year, tenable for three years, has been

bestowed upon Mr. Percy R. Allen, for his communication on "Machine Tools," and Miller Prizes have been given to the following students:—Messrs. Arthur Cameron Hurtzig, Charles Graham Smith, Richard John Gifford Read, Nicholas Watts, William James Chalk, and John Charles Mackay.

WROUGHT-IRON GIRDER WORK.

WE recently mentioned an interesting paper on wrought-iron girder work which was read by Mr. C. Graham Smith, president of the Liverpool Engineering Society, at a meeting of that association on the 20th ult. In the course of the discussion which followed,

Mr. Hudleston wished to know on what authority the author spoke so favourably of American bridges; for, from the descriptions that reached us of their failure, he would infer that a greater strain was put upon them than was usually allowed in this country.

Mr. Vernon Petherick thought one point of great importance in the design of wrought-iron girders had not been mentioned in Mr. Graham Smith's paper: that was, so arranging the riveting that the whole or greater part could be done by machine-riveting, thus ensuring not only better work, but a great saving in cost.

Mr. Clanchy said that as regarded the comparative advantages of pin and riveted joints, he was decidedly in favour of the former in new countries and remote situations, where the procuring and transport of cumbersome machinery was a matter of serious consideration and expense.

Mr. Wilkinson Squire quite agreed with what the author had said in regard to having an inspector to look after the construction of iron-work. He had had some experience in ironwork, and was fully of opinion that the imperfections in workmanship could alone be detected and remedied by a working inspector being always on the ground.

Mr. Maginnis was of opinion that the question of piece-work mentioned in the paper was deserving of special attention in all riveted iron-work. He thought it should, if possible, be entirely abolished, as although adopted by contractors on purely economical grounds, it in most cases turned out to be eventually the most expensive. He instanced a case of an iron vessel of about 500 tons register. This vessel made one coasting voyage, and the iron deck was found to be sagging down with the deck-load of coal which she was carrying, and she was also found to be making water to a serious extent. On entering the hold to make an examination he saw daylight through one of the rivet holes in the side of the vessel under the stringer plate; the rivet was there, but daylight was there also. Few of the other rivets were found to be properly up at the head, and in several cases the heads were upwards of a quarter of an inch from the plate. This vessel was plated, riveted, and entirely built by piece-work, and after the report of the survey it cost upwards of 3,000*l.* to put her in a seaworthy state. Another instance of the serious and false economy of the system had recently been found in two of the largest steamers trading to this port, they having after a few voyages to be put into dry dock and have extensive repairs done to them at a cost of some thousands of pounds. One firm of shipbuilders who rank very high for the strength of their vessels, knowing the defective work done by piece-work, entirely ignore it in riveting the shells of ships. These facts he thought sufficient to fully prove how much piece-work should be condemned, as even under the most minute inspection the dangers of the system are scarcely to be avoided.

Mr. Henry Turner said that during his experience of riveted work for boilers, ships, and girders, he had found very little difference in the quality of riveting done by piece-work as compared with that paid by the day. He thought a workman inclined to be careless would be so, however he might be paid. In piece-work the workman cuts out and makes good all bad riveting at his own expense; in day-work he does this at the master's cost. This, in his opinion, quite counterbalanced the extra care and longer time that might be spent upon day-work. In his opinion the great secret for producing good work was supervision. Manufacturers pay their men for sound work, and are anxious to supply their customers with the same for their own sake, as they have a great deal to lose and nothing to gain by sending out bad work. Referring to the remarks made by the last speaker about the bad quality of riveting in the hull of a steamer, which was found to be in a very leaky condition after a few voyages, and requiring extensive and costly repairs before she could be placed on her station, he could endorse this statement, for he happened to have been with the firm who executed the repairs; but he considered this state of things to be more due to faulty design than workmanship. The weakness was in the ship herself, as she had been built with the frames and deck-beams continuous, and with a large radius, say between 5 ft. and 6 ft., at their junction, and without the strengthening courses and gussets.

Mr. Alexander Ross complimented the author on the very practical and instructive paper he had just read. Alluding to his remarks on the effects of temperature on ironwork and the cambering of bridges under a hot sun, he believed that at the testing of one of the tubular bridges on the Chester and Holyhead Railway a similar effect had been observed. The loading of the bridge had been commenced early in the morning and occupied the first part of the day. The depression of the girder was eagerly watched for, but, to the surprise of all, instead of being depressed the girder was actually rising in the centre as the load increased. This was very puzzling, but the explanation was arrived at that the temperature was low when the loading commenced, and there being at noon a bright sun it increased considerably. The top flange being exposed to the sun's rays expanded more than the underside, which was shaded by itself, thus having the effect of cambering the bridge. He thought, from his experience in railway work, that iron oxide paint formed a reliable and cheap substitute for red lead.

Mr. Graham Smith, in reply, said he thought the few failures of bridges which took place in America should by no means be taken as ground on which to condemn the whole system of bridge-building in that country. It usually happened that, when the break-downs came to be inquired into, it was found such structures departed very considerably from recognised American practice. As to factors of safety being less in America than in England, he was under the impression that they were greater, 10,000 per square inch in tension and 8,000 (varying slightly with design) per square inch in compression being, so far as he was aware, the usual strains calculated to be put upon wrought iron in the United States. With reference to Mr. Petherick's remarks, his only reason for not touching on machine-riveting, and speaking more fully on the question of punched and drilled work, was that time would not permit of his doing so. He, nevertheless, fully appreciated the value of machine-riveting as not only giving more economical, but very much better, work than hand-riveting, and he looked forward to the day when such machines as Tweddell's portable hydraulic riveter should supersede, to a great extent, manual labour. As regarded the economy to be effected by the use of machines, a short time since he saw 130 rivets, ¾ in. diameter, put in an angle-iron beam, in ordinary work, in half an hour by one machine; the labour employed to do this was that of two men conducting the riveting, one nipper working the machine, one carrying rivets and drifting, and one heating rivets. The whole of their wages would amount to about the same as the wages paid to a gang of riveters, who would be restricted by their club rules to 180 rivets of the same diameter for a day's work.

Burning of a Theatre.—A fire broke out on Monday morning on the premises of the Rotunda Theatre, at the north end of Liverpool. Soon after it was discovered the fire assumed large proportions, and in the course of about four hours the theatre was completely destroyed. The fire seems to have originated near the stage, whence it spread to the boxes, galleries, pit, and roof, which were all in flames when the firemen arrived. The bar-room, billiard-rooms, and a bed room were saved, but the only portions of the theatre proper that remain are the outer walls. The fire was fortunately confined to the theatre, and was extinguished about ten o'clock. The building is to a great extent insured in the Liverpool, London, and Globe, the Northern Insurance Company, and the Atlas Company. The Rotunda, which was the only theatre at the north end of the town, had only recently been renovated.

ATTEMPTED SALE OF KENSINGTON HOUSE.

MR. ALBERT GRANT'S House, described in our pages some time ago, was put up for sale at the Mart, on Friday, the 6th inst., by Mr. R. C. Driver, and was ultimately bought in at 165,000*l.* The auctioneer said nearly 200,000*l.* had been expended on the building, and the land had cost 100,000*l.* more, about seven acres, freehold. He said he had sold some neighbouring land, near Mr. Millais's house, at 100,000*l.* an acre, and the Commissioners for the Exhibition of 1851 had let one piece of land with 70 ft. frontage to Mr. Samuel for 700*l.* a year, while half an acre opposite was let at a rent which, capitalised, would give the price of 100,000*l.* an acre. That would give some idea of the value of land in South Kensington.

THE CRYSTAL PALACE AND THE TECHNICAL COLLEGE SCHEME.

A CIRCULAR has just been issued by the chairman of the Crystal Palace Company in reference to the proposal of the City Companies to establish a technical college within the Palace grounds. In this circular he states that if such an institution for the promotion of technical education as is contemplated by the City Companies is to be of any practical use, there must not only be a central college for instruction, but extensive museums and workshops. To provide a site large enough for these purposes within the City bounds, either as had been suggested on the Thames Embankment or elsewhere, would be scarcely possible, or, if possible, would require an Act of Parliament, and be enormously expensive. In any case, it would be years before such a site could be found and purchased, and the necessary buildings erected upon it. He then adds that the Crystal Palace Company have already begun this work, and with considerable success. They have a school of practical engineering, in which youths are prepared for the workshops and offices of our great firms. There is also an excellent school of art and science, and it is a centre for the Oxford and Cambridge local examinations. There is, too, an extensive technological museum, under the superintendence of, and chiefly collected by, Dr. David Simpson Price. The collection is housed in the galleries of the Palace, and the company has a very large space in the adjoining galleries, which they could offer to the City Companies for their proposed collections, while, in the basement, they could provide space for the collections of machinery and heavy articles, and for workshops. With these facilities, each guild might secure its own separate portion of space, and they would, at the same time, be all under the same roof, and side by side.

ST. JOHN'S CHURCHYARD, WATERLOO-ROAD.

ITS SANITARY CONDITION.

A NOVEL objection, on sanitary grounds, was urged at the meeting of the Lambeth Vestry last week, to the conversion of St. John's Churchyard, Waterloo-road, into a garden. A petition was read from the vicar, churchwardens, and parishioners, soliciting the assistance of the Vestry in providing the amount necessary for the completion of improvements in converting the disused burial-ground into a public garden for the quiet recreation of the inhabitants of the district. Mr. Duncan said he had relations buried in the ground, and decidedly objected to the grave-stones being interfered with. On sanitary grounds he was opposed to such a ground being converted into a garden. Mr. Charles White, on the other hand, thought that a neglected churchyard was more disrespectful to the relatives of persons buried there than it could possibly be to know that the place had been made into a decent garden. He had often wondered why churchyards in the metropolis should have been allowed to get into that dreadful condition in which some had, including this one of St. John's, which some time ago was little better than a receptacle for dead cats and dogs, and refuse of all kinds. Mr. Mills observed that he could not understand Mr. Duncan objecting to the conversion of the churchyard on sanitary grounds. The planting of trees in the place surely was not objectionable from a sanitary point of view; and he instanced the improvements of this character which had

been effected in St. Pancras and other parishes in the metropolis. The vestry as a body was in favour of complying with the request, and it was agreed to refer the petition to the General Purposes Committee to take into consideration the best method of carrying out the wishes of the vicar and parishioners.

A HIGH-LEVEL BRIDGE IMPROVEMENT IN LIVERPOOL.

THE corporation of Liverpool have just resolved upon a very important street improvement. At their meeting last week the improvement committee recommended that the council should approve the continuation of William Brown-street upon the high level to the junction of Manchester-street and Dale-street, and the widening of Dale-street on the south side between Manchester-street and Crosshall-street. William Brown-street is situated between St. George's Hall and the Free Library and new Art Gallery, and leads on, by way of Dale-street, direct to the town-hall, the Exchange, and the river, the passenger cross traffic of which is enormous. Mr. Alderman Hubback, in moving the adoption of the recommendation, said that no more important improvement could be brought before the council than the erection of this high-level bridge, which would be not only an ornament to the town, but a great benefit to the masses who had to come from the eastern part of the town to its business parts and the river. Mr. Picton, in supporting the recommendation, said that the proposed high-level bridge would supply a want which had long been felt in Liverpool,—facility of communication, or means to pass from one part of the town to another. It would give access from the eastward part of the town, and would equal anything of the kind in any town in the kingdom, and would be to Liverpool what the Holborn Viaduct was to London. Mr. Whitby (formerly mayor) observed that while not opposing the proposal, it must be evident to all that the carrying out of the high-level bridge would be attended with an enormous expense, as there would be immense claims for compensation. The question was, whether it was not more of an ornamental character, though he admitted it would be useful to a great extent in bringing people from the east end of the town. The recommendation was adopted, and the engineer and surveyor was directed to prepare plans and estimates.

IRON PAVING.

BY permission of the Commissioners of Sewers of the city of London, a portion of the new wood paving in Beech-street has been charged with iron (3 cwt. to the square yard), by way of experiment, to increase the durability of wood and preserve and protect it from heavy racking traffic, and to test the practicability of securing small blocks of iron without framework, and so as to deaden the noise and counteract the other disadvantages of metal as hitherto applied.

The ordinary wood-paving blocks are bevelled by machinery on the upper and lower edges, and between each row is laid a row of cast-iron blocks of double-wedged section, thicker at the upper and lower surfaces than in the centre, so as to fit mechanically between the bevelled wood blocks which, on section, are thicker in the centre than at the upper and lower surfaces. The iron blocks weigh 16 lb. each, are rounded and serrated on surface for foothold, and perforated for grouting material, and are bedded in sand on the ordinary concrete bed.

The designer and patentee (Mr. Dennison, architect) maintains that the cost, though heavy at first, will not, in the long run, exceed either granite, wood, or asphalte.

THE BRITISH MUSEUM.

SIR,—You are always ready to give due publicity to a public grievance; may I ask you to note one of mine and others? It is this,—that in the British Museum "antiquity" galleries there are but a very few seats, and they are *immovable*, so that there is no possibility of getting from them just the *point of sight* you need when drawing from or studying an antique object. May I therefore suggest through you that a *few* light cane chairs should be placed in these galleries, so that,—*being movable*,—they could be so placed as to catch the point of sight needed? It would be a great boon to students.

A STUDENT OF ANTIQUITY.

RAMSGATE IMPROVEMENTS.

IN our volume for 1869 we suggested some improvements desirable for Ramsgate.* We pointed out, *inter alia*, the great want there was of a road from the sands to the top of East Cliff. Such a road has now been completed, and was opened last week. The improvements in question have been designed and carried out by Mr. Edmund F. Davis, who has recently purchased the Coutts Estate at Ramsgate, which includes the cliffs lying between the Granville Hotel and the sea. Until now, the only direct access from the beach to the Granville has been by a wooden staircase, and persons coming from the railway have been compelled to drive by a circuitous route; but Mr. Davis has cut a winding carriage-road from the railway station to the hotel, and has converted the space between the two chief bends of this road into a garden and pleasure-ground. At one end of this pleasure-ground a hall has been built, suitable for a reading-room, or for concerts or other entertainments; and the face of the cliff has been excavated to form shops. Above each shop are dwelling-rooms sufficient for the accommodation of a small family; and the appearance of the row thus built is extremely picturesque. The former proprietors had already commenced a sea-wall, which has now been completed; and the general effect of the works has been to give Ramsgate a new and sheltered promenade, partly gravelled and partly covered with asphalt, protected from the waves by an effectual barrier, and well provided with places of shelter by the hall and by the shops, some of which have been taken by a *restaurateur*. The engineering difficulties which have been overcome have been considerable, the soft chalk requiring to be supported with great care.

SCHOOLS FOR ST. GEORGE THE MARTYR, MIDDLESEX.

THE corner-stone of the new boys' school, residences, &c., for this parish, was laid on the 5th inst. The site is immediately to the south of the church in Queen-square, Bloomsbury. The building is in place of that erected in 1859, in Theobald's-road, and taken down recently by the Metropolitan Board of Works, in the formation of the new main communication from Oxford-street (*vid* Hart-street, Bloomsbury) to Old-street, St. Luke's. Compensation having been obtained for the removal, the opportunity has been taken to advance another step the scheme of forming a complete group of parish buildings,—long in contemplation, but only partially carried out. The parish church, the schools for girls and infants, erected in 1864, and the new schools for boys, bearing a general resemblance to them, will be close together. To these, and the different residences adjoining, it is proposed to add hereafter public vestry buildings on the south-west of the church. There will be desks for 200 children in the schoolroom, which will also be the public hall of the parish, 60 ft. by 34 ft. on the floor, 31 ft. high in the middle, and 21 ft. at the eaves, covered with a boarded and panelled hammer-beam roof. A large storeroom, 47 ft. by 34 ft., in the basement, will receive the platforms as well as the seats for some 350 persons, from the schoolroom above it. Caretaker's, master's, and assistant master's residences will be placed in the tall front building next Queen-square. Mr. John Wells is the builder executing the works, under Messrs. J & S. F. Clarkson, architects, of Great Ormond-street; the contract price being 4,700*l*.

The Royal Dramatic College. — The *Theatre*, a newly-established and well-conducted weekly critical journal, says,—"The determination to carry on the Royal Dramatic College had scarcely been come to when the members of the Council began to quarrel among themselves. Mr. Webster, Mr. Chatterton, Mr. Anson, Mr. Churchill, and Mr. Lye recently met, and resolved to take 500*l*. from the Cooke bequest, and give it to the institution at Maybury. Colonel Cochrane, Mr. Vernon, Mr. Swanborough, Mr. Ledger, Mr. Burgess, and Mr. Waddell thereupon resigned their seats as members of the council." This is an odd state of things, the majority resigning to the minority. Can nothing be done to save this ill-starred institution? Would not Chancery interfere if properly appealed to?

* Vol. xxvii., p. 902.

THE DECORATION OF ST. PAUL'S.

SIR,—If Emmett's engraving of the interior of St. Paul's be any criterion of Sir Christopher Wren's intentions,—as I think it will be generally admitted that it is,—then we may see in it to what extent mosaic could have been applied to the dome, which was ornamented in its greatest extent with deep panels, having in their centres sculptured rosettes; it was ornamented, in fact, in its chief extent, precisely as the soffits of all the other arches in the building. In the structural framing or grand divisions of this panelling, now represented by the dividing frame of Thornhill's designs, there are, however, indications of arabesque decoration, and it could have been in these narrow spaces alone that Wren could have contemplated employing mosaic. Moreover, there were originally four oval lights in the very cavity of the dome. There was also a plain space girthing the base of the dome which might have been filled with mosaic, but in the engraving there is not the slightest indication of embellishment being there intended. This plain space was above the cornice of the lights in the drum of the dome. But Wren was not of sufficient authority in matters of decoration to be implicitly trusted. We can rely, however, upon the motives,—the spirit in which the great Protestant cathedral was designed. It was to rival St. Peter's at Rome, but not to be a copy of St. Peter's, either externally or internally,—that was the leading idea of Wren, and therefore whatever is now done in the way of decoration must be in conformity with that idea, or Wren's primary or fundamental purpose will be betrayed.

W. C. T.

MASTERS AND MEN.

Gravesend.—The carpenters and joiners in the employ of Mr. Blake, builder and contractor, having memorialised their employer for an advance of wages and a reduction in the hours of labour, Mr. Blake, after interviewing a deputation on behalf of the men, acceded to their demands, the result being that after the second Saturday in July the rate of wages will be 7½d. per hour for 56½ hours per week, with half holiday on Saturday.

Manchester.—At a meeting of master builders held at the Palatine Hotel on the 10th inst., it was reported that the number of men at work was steadily and satisfactorily increasing, and that not more than 8½d. per hour was being paid. In reply to a letter from one of the largest lodges of operatives, asking the masters to receive another deputation, the meeting resolved that it was undesirable to do so, "inasmuch as it might lead to a belief that the employers were countenancing an attempt to compromise the dispute. The shops are open at 8½d. per hour, and the employers see nothing to induce them to depart from the position they have taken up."

Cardiff.—After a protracted strike of twelve weeks' duration, the Cardiff Master Builders' Association have conceded to the operative stonemasons the halfpenny per hour demanded by them, thus making their wages 8d. per hour. Work has now been generally resumed throughout the district.

Rugby.—In accordance with a notice given some time since, the stonemasons of this place came out on strike on the 25th ult. They were getting 7½d. per hour, and they now demand 8d., which the masters refuse. The bricklayers, who came out about two months ago for an extra penny per hour, are still on strike.

EMBEZZLEMENT BY THE LATE FOREMAN AT THE NEWBURY MUNICIPAL BUILDINGS.

AT the Berkshire Assize, before Baron Huddleston, Charles Dickinson, 34, was charged with embezzling several amounts, the moneys of his employer, Mr. Crook, of Southampton, contractor for the erection of the new Municipal Buildings at Newbury.

Mr. Gough prosecuted, and Mr. Bulley defended.

Prisoner had more than once obtained from Mr. Crook money for the payment of the carriage of the same lot of lime, and also for the amount of other accounts, which he had represented he had paid. He also falsified his accounts, charging Mr. Crook with wages of men alleged to have been employed on the works, who, however, were not working there at the time for which the prisoner had charged.

The jury found the prisoner guilty, upon which he made a long statement, making certain allegations reflecting upon the credit of Mr. Crook.

Baron Huddleston told him that instead of such allegations coming to his assistance, they were very much against him. The sentence of the Court was that he be imprisoned for nine months, with hard labour.

WHAT COMES WITHIN THE TERM A PRIVATE RESIDENCE?

GERMAN *v.* CHAPMAN.

IN this case, tried in the Chancery Division, before Vice-Chancellor Sir J. Bacon, the plaintiffs were owners of the Bradbourne Estate, near Sevenoaks, and had sold portions of it for building purposes. One of such portions was bought by the defendant in 1872, who then entered into a covenant that any building erected on the land should be used as a private residence only. The defendant now intended to sell his land to the trustees of an institution for the education of missionaries, who intended to build on it a house capable of holding 100 girl boarders. This action was brought to restrain the use of the land for this purpose on the ground that such a building would not be a private residence.

Vice-Chancellor Bacon held that a home for missionaries' daughters was a private residence, and the number of children to reside there would make no difference. The action must be dismissed.

ARCHÆOLOGICAL SOCIETIES.

Wiltshire.—The annual meeting of the Wiltshire Archæological and Natural History Society has been fixed for August 22nd, 23rd, and 24th, at Warminster.

Somersetshire.—A meeting of the local members of the Somersetshire Archæological and Natural History Society was recently held at Bridgwater, under the presidency of Bishop Clifford, the president for the year. The meeting in Bridgewater was fixed to take place on Tuesday, August 7th, and two following days. The annual meeting will be opened by an address from the president, after which points of local interest in the town will be visited and discussed. In the afternoon it is proposed to visit Sydenham House and Chedzoy Church; and at an evening meeting papers will be read on several local subjects. On the second day it is proposed to make an excursion to Athelney, returning by way of Borough Bridge, Othery, Middlezoy, and Weston-zoyland. On the third day an excursion will be made by way of Cannington Park and Holford to Danesborough, returning through Stogursey. During the meeting a local museum will be formed.

Kent.—The members of this society will have their annual gathering in Thanet this year, on the 1st and 2nd of August. The opening meeting will take place at Ramsgate, and the dinner at the Foresters' Hall, Margate. A temporary museum will be formed in a large room in Hawley-square, Margate, kindly placed at the disposal of the society by the directors of the Waterworks Company; and the principal points of interest in the excursion will be the fine old church and the Abbey at Minster, containing specimens of Saxon and Norman work. Papers on these will be read by the Rev. Canon Jenkins. Nearer Margate are Salmstone Grange and Dandelion. On the second day the Roman remains of Reculver will be visited. The hon. secretary, the Rev. Canon Robertson, has paid several visits to Thanet to perfect arrangements.

Birmingham and Midland Institute.—On the 30th ult. the members of the Archæological Section of this Institute made their first walking excursion this season to Packington, Maxstoke, and Coleshill. The party, numbering between forty and fifty, left the Institute in carriages. The route chosen was by way of the Coventry-road as far as Stonebridge. Passing through the long and straggling parish of Yardley, a pleasant drive of over an hour and a half brought the party to Stonebridge. The way then lay along the banks of the Blythe to the church at Little Packington, which is a mean structure, though boasting a Norman, if not a Saxon origin. The only interesting point about the church is a tablet to the memory of one of the Shakespeares. The party were not permitted by the Earl of Aylesford to pass through Packington Park. Passing the Hermitage Farm, a walk through pleasant Warwickshire fields and lanes brought the party to Maxstoke Priory. The particulars and parts of interest were pointed out by Mr. Holliday, who exhibited a plan of the buildings and described what had been done by the Archæological Section by excavating towards obtaining more precise details of the old ruins than the parts above-ground showed. The plans of the church, the cloisters, and other buildings had been traced in the recent excavations, and drawings of these, with what was known of the history of the Priory, he said, would be given to the members in the forthcoming volume of "Transactions" now in the press. A walk of between two and three miles brought the party to Coleshill, where tea awaited them. After tea the church was visited. It is a fine example of the Decorated Gothic of the fifteenth century. In 1591 the tall and beautiful steeple "suffered much hurt by lightning and *thunder*, which crackt the west side of the tower, and shattered the upper part of the spire; for repairing whereof, though the inhabitants sold one of their bells, yet did they shorten it by XV foot at the least." Coleshill is one of the very few places in which is to be found the old-fashioned pillory. The party returned home through Castle Bromwich and Washwood Heath.

WANTAGE.

THE inauguration of King Alfred's statue, which is to take place at Wantage on (this) Saturday, is not the only thing in which Lord Overstone and Col. Lloyd-Lindsay are concerned at Wantage. The hideous town-hall is razed to the ground, and a new town-hall is being built at the corner of the Market-place, at their expense, from the designs of Mr. Tasker.

Lord Overstone has also given 1,500*l.* towards the enlargement of King Alfred's Grammar School, of which Mr. Henry Cook is the master, and Mr. E. C. Robins is the architect. The works are nearly completed.

He is also about to assist the vicar, Mr. Butler, in the enlargement of the old church, which was restored by Mr. Street many years ago. Mr. Butterfield is the architect for the proposed enlargement.

At the school buildings there is an old Norman doorway, the only remains of the ancient school buildings, built into the wall as an entrance to the boys' large class-room.

CHURCH-BUILDING NEWS.

Leytonstone.—On the 27th ult. the foundation-stone of the new Church of the Holy Trinity, Harrow-green, Leytonstone, was laid by Miss Brady, daughter of Sir Antonio Brady. The church is to be entirely free and open, is to hold 700 people, and will cost at least 6,000*l.* Mr. J. T. Bressey, of Wanstead, is the architect; and Mr. J. Brown, of London, the builder. It is to be a spacious red brick building suited to the requirements of the neighbourhood.

Sheffield.—With reference to the proposed enlargement of Sheffield parish church, the *Sheffield Independent* understands that Mr. Mark Firth, with his customary generosity, has undertaken the entire cost of the new porch, which forms a portion of the work comprised in the plans for the enlargement of the parish church. It has for some time past been known that Mrs. Samuel Parker intends to defray the whole of the expenses incurred in the restoration and alteration of the chancel; and more recently it has been stated that the members of the local Masonic lodges will present the new font, and thus the cost of much of the work necessary to be done in carrying out the enlargement of the church will not have to come out of the 10,000*l.* given by Mrs. Thornhill Gell, the late patroness of the living. Large as that sum is, it is not sufficient to do all that is contemplated, or indeed absolutely required. It will be entirely spent in the actual enlargement of the church. The *Independent* understands that the plans prepared by Messrs. Flockton & Abbott, and sanctioned by Sir Gilbert Scott, have been finally approved of, and that as the faculty has arrived, a part of the work will be proceeded with at once.

Moxley.—On the 27th ult. the small township of Moxley was astir with the proceedings connected with the "inauguration" of the parish church spire and clock and chancel window, which have been erected and placed there by the Wells family in memory of the late Mr. Thomas Wells, of Moxley. The tower and spire, the gift of Mr. Thomas and Mr. Charles Wells (sons of the late Mr. Wells) are in character with the Early English style of the church. The spire is 120 ft. high, and is built of Codsall stone, having a pinnacle at each of the four angles of the tower. It has also angle buttresses, which are sunk and wrought. Room is provided for a peal of bells, but at present there is only one, upon which the clock strikes. Mr. A. P. Brevitt, of Darlaston, is the architect. The clock has been supplied by Mr. Smith, of the Midland Works, Derby, and is the present of Mr. S. J. Wells and his sisters. The chancel window, presented by Mrs. Wells, and executed by Messrs. Hardman & Co., represents subjects chosen from the lives of various saints to whom the church is dedicated. The cost of the entire additions amounts to about 1,500*l.*

Nelson-in-Marsden.—On the 16th ult. the corner stone of a new church was laid at Nelson-in Marsden, near Burnley, by Mr. Wm. Farrer Ecroyd, J.P. The church is to accommodate about 500, and will be a chapel of ease to St. Paul's. Mr. W. F. Ecroyd has given the land, and he and his brother, Mr. Ed. Ecroyd, have promised 4,000*l.* towards the cost, which will probably be about 8,000*l.* The designs have been prepared by, and the church will be erected under the superintendence of, Messrs. Waddington & Sons, architects, Burnley.

Rugby.—The Bishop of Exeter has laid the foundation-stone in connexion with the rebuilding of the parish church of St. Andrew, Rugby. The old church had long been felt unsuited to the requirements of a growing town like Rugby. Of the old church the tower and four bays in the south aisle remain standing; and it is intended to build a new nave with a high-pitched roof, to rebuild the north aisle, and, in a measure, the old nave, which will be finished as a memorial of the late rector, the Rev. John Moultrie. The new buildings will occupy a much larger area than the old, as accommodation will be provided for between 800 and 1,000 persons. Entrance will be afforded by two porches on the north and south sides of the western front. The east end will not be finished in a permanent manner, as about 2,000*l.* are wanted to complete the chancel, and 3,000*l.* for a new tower-spire at the north-east angle, and which, for want of funds, will only be carried up about 30 ft. The new portions will be of Bath stone, and in harmony with the old. Mr. Butterfield, of London, is the architect, and Messrs. Parnell & Son are the contractors.

Maida Vale.—It having been determined to enlarge St. Mark's Church, Maida Vale, the memorial stone of the additional structure was laid on the 23rd ult., by Prince Leopold. Mr. Ferrey, the architect, presented the Prince with a silver trowel, and his Royal Highness proceeded to lay the stone with the usual ceremony.

DISSENTING CHURCH BUILDING NEWS.

Rievaulx.—A new Wesleyan chapel has been opened at Rievaulx. The structure, erected on land granted by the Earl of Feversham, is in the Early English style. The internal fittings have been done by Mr. Lawn, the village joiner. The cost is 300*l.*

East Molesey.—A new Wesleyan chapel has been opened in this suburban village. The site was generously given by Mr. Chubb, of St. Paul's Churchyard, and the architect was Mr. Lander, of Barnstaple. Mr. Higinbotham, of Sunbury, has carried out the work. The cost of the whole will be about 1,400*l.*

Hornsey.—On the 20th ult. the Lord Mayor of London laid the foundation stone of a new Presbyterian Church at Wood Green, Hornsey, the site being in Southgate-road. The cost of the new church, which will be known as St. James's Presbyterian Church, is estimated, including the freehold land, at 5,500*l.* The church will seat 400, without galleries, the contractors being Messrs. Harris & Wardrop, and the architect is Mr. Thomas Arnold.

Uttoxeter.—A new Wesleyan chapel at Gorsty-hill, near Uttoxeter, has just been opened. The building is of brick, with stone dressings. It has been erected by Mr. Vernon, of Thurvaston, and the cost of it amounts to about 270*l.*

Kirkdale.—On the 28th ult. the memorial stone of a new Wesleyan Mission chapel was laid in Rosalind-street, Stanley-road, Kirkdale, by Mr. James Wood, LL.B., of Southport. The building is to be of corrugated iron, and its length will be 78 ft. by 32 ft. In addition to the chapel, there will be vestries and an infant school, and the cost of the whole erection will be about 1,400*l.* The builders are Messrs. Dyer & Co., of Barrow.

SCHOOL BOARD SCHOOLS.

London.—It appears, from a report of the Statistical Committee of the School Board for London, recently presented, that a large amount of accommodation has yet to be provided, in order to meet the requirements of the population. The first district whose wants will be considered is Chelsea. The group of sub-divisions T, S, and Q of Chelsea lies to the west of the West London Junction Railway,—between the river and Hammersmith-road. In the northern sub-division, T, the Board have taken steps to secure a site for the erection of a school for 828 children. In the southern sub-division, Q, they have built a school in Harwood-road for 722 children, and the department have recently sanctioned its enlargement by 382 places. Although building operations are being actively carried on throughout the entire length of the North End-road, which runs through the eastern ends of the two sub-divisions from Hammersmith to Fulham, the Board have not hitherto decided to provide accommodation in the central sub-division, S. They now concur with the Chelsea members in thinking that it will be better to provide accommodation for 620 children in this sub-division rather than at once to enlarge the Harwood-road school, and they accordingly recommend that application be made to the Education Department for authority to provide additional accommodation for 238 children in the said sub-divisions, and that the Works Committee be instructed to secure a site in the eastern part of sub-division S, and to erect a school thereon for 620 children, instead of enlarging the Harwood-road school by 382 places. On the 9th May the Board had under consideration the requirements of the Queen's-park estate, which lies adjacent to the Harrow-road, and determined to enlarge the school which they are building in D block from 828 to 1,104 school places. A second site has been secured in this locality in Beethoven-street, and in view of the rapid progress which is being made, and the probability that nearly 40 acres of land will be covered with working-men's houses, the committee recommend that application be made for authority to provide accommodation for 1,104 children on this site. The projected Fox School in Silver-street, Notting-hill, is recommended to be extended so as to provide for seventy more children, there being already more boys on the roll of the temporary school than could be accommodated in the new school as originally authorised. The committee still adhere to their opinion that a school for 500 children will not meet the requirements of the district of subdivision E of Chelsea, and therefore consider that the opening of the St. Simon's Girls' school may be authorised independently of the proposed enlargement of the Queen's-gardens Schools. Two schools upon the separate class-room system have been built, one in Ben Jonson-street, Tower Hamlets, and another in Haverstock-hill, Marylebone. The Hackney members are desirous to have a school of this description in their division. It has recently been determined to build a school for 1,104 children in Homerton, and the committee recommend that the Works Committee be instructed to plan the new school upon the separate class-room system. The committee also recommend that application be made for authority to provide 276 additional places in subdivision U of Lambeth, and that the Works Committee be instructed to build the Boundary-lane School for 1,104 instead of 828 children; and they recommend further that application be made to the Education Department for authority to provide additional accommodation for 300 places in subdivision N of the Tower Hamlets by utilising the central hall of the Ben Jonson-street School for that number of children.

High Felling (*Durham*).—The foundation-stone of the first school erected by the Heworth School Board since its formation was laid on Friday, the 22nd ult., by the chairman of the Board (Mr. W. W. Pattinson) at High Felling. There was a large attendance, and the children from the various schools under the Board were present. The schools are arranged on the mixed principle, the boys and girls being taught in one department, and separate provision being made for the infants. The mixed school accommodates 500 children, and consists of one large room, with four class-rooms. The infants' school accommodates 250 children, and consists of one large room, and two class-rooms. Covered sheds and latrines, and separate playgrounds, are provided. A caretaker's house, consisting of four rooms and the necessary out-offices, is also to be erected upon a portion of the site set apart for this purpose. The warming will be by means of hot water in pipes and coils. Messrs. White & Sproat, of Blyth, are the contractors. The works are being carried out, at a cost of 5,970*l.*, from the designs and under the superintendence of Mr. Thomas Oliver, of Newcastle-on-Tyne, architect. Another group of school buildings, from the designs of the same architect, and for the same Board, is about to be commenced at Bill Quay. Mr. Lowes has been appointed to act in the capacity of clerk of the works to both buildings.

Harmondsworth (*Middlesex*).—New Board Schools, erected by Mr. G. Gibson, of Southall, from the designs of Mr. E. H. Lingen-Barker, architect, have been opened by Viscount Enfield. They occupy a commanding site, given by the Earl of Strafford, on the high road from London to Bath, and comprise the following rooms:—Infants' school-room, 32 *ft.* by 20 ft.; boys' and girls' school-rooms and classrooms, 27 ft. by 20 ft., and 14 ft. 6 in. by 14 ft. respectively. There is also a commodious teacher's residence detached from the school buildings. The number of children provided for is 248 (or 328 calculating 8 superficial feet for each child); the contract cost of buildings, offices, and fences (exclusive of fittings) being exactly 4*l.* 15*s.* per head.

Forres.—The new Board schools at Dyke, Forres, N.B., have been opened. They have been erected, at a cost of over 1,500*l.*, in the Elizabethan style, with belfry and clock-tower, after plans by Mr. Mackintosh, architect, Inverness, and are situated on a rising ground at the north end of the village.

Books Received.

Early Exhibitions of Art in Liverpool: with some Notes for a Memoir of George Stubbs, R.A. Privately Printed. Liverpool. 1876.

THIS is a very interesting, and in its way almost unique, little book, by Mr. J. Mayer, of Liverpool, well known in that town and its neighbourhood as a gentleman who has turned his well-acquired means towards the practice of an enlightened philanthropy as well as to the collection, with an equally enlightened æsthetic taste, of objects of art and archæology. Recent revivals of art enthusiasm in Liverpool seem to have suggested to him the compilation of a small book giving some account of the first efforts in the way of the encouragement of art and artistic exhibitions in the town on the banks of the Mersey. Liverpool was peculiarly an "aristocratic" neighbourhood at that period, but (as Mr. Mayer notes) it was from the lower rather than the upper stratum of old Liverpool society that the first impulses in favour of the cultivation of artistic taste arose. The promoters of the first exhibitions were not titled persons, or representatives of old families, in the main at least, though the names of one or two old houses appear in his list of exhibitors, and the first beginnings of art in Liverpool were humble enough, yet they were set on foot with the evident intention of following the lead of the capital with as little delay as might be. Mr. Mayer notes that within twelve months of the incorporation of the Royal Academy, there followed the effort in the same direction by certain gentlemen in Liverpool, who formed a society, and took an "Academy Room" at No. 30, John-street. "The movement as yet was almost confined to drawing-masters and those who had a business interest in the arts." This was in 1769; but no attempt at anything like an exhibition seems to have been made till 1774, when there was held what Mr. Mayer calls (as it very probably was) "The first provincial exhibition ever held in Europe." The catalogue contained only eighty-five items, including designs for bedsteads in the Chinese, Palmyrean (!), and Gothic "tastes," and a head of the Marquis of Granby, executed in human hair. Among the most active of the promoters was Roscoe, the once eminent literary lion of old Liverpool, whose fame seems to be following the fate of all literary reputations based upon mere "elegant accomplishment" without genius. Mr. Mayer, who admits that it is hopeless to think of reviving Roscoe's fame, gives some account of him, and reprints his "Ode" on the occasion of the exhibition, which is historically instructive, as showing the sort of thing which could at one time be supposed to add an interest to an artistic celebration. Some of the old catalogues are reprinted, with information in reference to some of the now unknown or forgotten names. A portion of one of the lectures given under the auspices of the Society (the manuscripts of which are preserved in Mr. Mayer's collection), upon the subject of picture-cleaning, is amusing. The lecturer (his name is not preserved), commenting on Sir Joshua's reported practice of scraping off coats and glazings from paintings of the Venetian school, to find their system of manipulation, says:—

"I had a better opportunity. Good comes out of everything. I, by looking over the intelligent being" (*i.e.* the picture-cleaner) "when it was scouring-day, had the pleasure of seeing all the different coats or strata of a variety of pictures vanish one after the other, from the epidermis, or last transparent finishing, down to the raw dead colouring, beyond which he seldom ventured. But I am under the greatest obligations to my dear old departed friend, John Evans, for going still further. He certainly was, in his time, the best of all possible grubbers; though I believe in the present day we do not want five hundred as good as he. He, by means of a brick (a delicate malmstock, observe) and water only, used to let me see on what coloured *grounds* the ancients painted: he fetched off everything, except here and there a stubborn bit of heightening."

Mr. Mayer adds to his little volume a short sketch of the artistic career of George Stubbs, R.A., who was a native of Liverpool, and enjoyed great repute as a painter of horses; a repute which some of his works which have appeared at the Burlington House Loan Exhibitions do not fully explain; but he probably did better things than these, and was an indefatigable student of anatomy, and published, at the cost of much labour and time, a series of plates illustrating minutely the anatomy of the horse. A singular story is related in testimony to the fidelity and life-like appearance of his portraits of horses; having executed one, life-size, of a horse belonging to the Marquis of Rockingham, the horse, who was of a savage temper, on catching sight of the picture as the artist turned it round to the light after the last "sitting," attempted to attack the double of himself, and was with difficulty held in by the artist and the groom.

We have read with much interest Mr. Mayer's short record of an early chapter in provincial art history; which, besides giving curious information, is admirably written, and without a superfluous word.

VARIORUM.

CHARLES KNIGHT'S "Old Printer" has been reissued under the title "William Caxton" (Hardwicke & Bogue), as appropriate to the celebration of the quar-centenary of the Introduction of Printing in England, now going on. It is a very agreeable and instructive shilling's worth.——In honour of the same great printer a "Citizen and Goldsmith," dating from Rousdon, reproduces in a pamphlet for gratuitous circulation the excellent "Rules for the Conduct of Life" which the Corporation of London present to every apprentice on whom the freedom of the City is conferred.——The July number of *Belgravia* contains with its usual number of stories an interesting account of Henry Schliemann, by Miss Kate Field. A Holiday Number of this magazine, for Midsummer, has been published, with an engraved frontispiece worth the cost of the number.

ACCIDENTS.

A STEAM-ENGINE at the new railway station works, Preston, near Brighton, has fallen into an excavation where several men were at work. One man was got out soon after, but life was extinct.

The other night an accident happened at the Tay Bridge, the result of which was that a man named James Bain lost his life and a girder fell into the river. It appears that a number of men were engaged raising the eastern half of a 148-ft. girder, weighing 24 tons, to its position on the top of the iron columns, when one of the chains by which it was being drawn up snapped, and the other chain giving way almost simultaneously, the girder fell from a height of 50 ft. into the river. Bain was standing on one of the piers beside a heavy box, which was used in lifting the girder when the accident occurred, and on the first chain breaking, the jerk that the other received caused it to draw over the box, which weighed 30 cwt., on the top of Bain, crushing him between it and the wooden block, and killing him instantaneously. Deceased leaves a widow and family. The engineers state that the financial loss incurred by this accident will not exceed 200*l.*, and that the completion of the undertaking will not be the least retarded.

An accident occurred on Saturday morning through the fall of part of an additional bridge spanning the Seven Sisters-road, close to the Finsbury Park Station of the Great Northern Railway. All Friday night men had been working to place in position a girder weighing some 50 or 60 tons, and about half-past nine on Saturday morning, when the task was almost completed, one end of the girder, which was supposed to be safely settled on its masonry supports, suddenly swayed and fell with a fearful crash on to the roadway, tearing huge seams in the wall and shivering the pavement beneath into splinters. Unfortunately just at that moment a man was passing the spot and was instantaneously crushed to death. The cause of the accident is accounted for in various ways. By some it is supposed that it was caused through the vibration of a passing train, whilst others assert that the disaster occurred through one of the working men striking away, without instructions, one of the timber supports.

While a dozen men were engaged in completing the roof of a new church, on Ayres Quay, Sunderland, a sudden squall of wind drove the couplings together, and carried them into the church beneath. Nearly all the men were carried down amongst the timber, and half a dozen were seriously injured. The chancel arch was completely broken through.

Miscellanea.

The Restoration of Worcester Guildhall.—At a meeting of the Worcester Town Council, on the 3rd inst., the Sheriff brought forward the recommendation of the Guildhall Restoration Committee, to accept the tender of Mr. Thomas Dixon to execute the several works in the restoration of the Guildhall, according to the plans and specifications prepared by Sir George Gilbert Scott and Mr. Rowe, and with the fittings of oak, at the sum of 11,543*l.* 4*s.*, subject to himself and sureties entering into a contract containing such provisions as the town clerk might deem necessary. This, the Sheriff observed, was a necessary sequence of what the council had already done in sanctioning reconstruction of the hall, the plans for that work, &c. The recommendation was adopted, notwithstanding the protest of Alderman Woodward, who said it appeared to him that the Council had gone too far to recede, but he still maintained the opinion he had represented to the Council over and over again, that a more wasteful expenditure and one less profitable to the city than that proposed had never taken place since he had been in the Council. He was quite satisfied that the city would not be free of this contract for much less than 30,000*l.* If they had done as they ought to have done, they would have had a new building, which would be a credit and an ornament to the city, and of far greater utility, for that amount.

The Bridge Failure at Bath.—At the inquiry into this calamity, on Wednesday, Colonel Yolland, in his evidence, said the failure of the bridge was not due to the inferior quality of the materials of which it was constructed. With a moving load of 160 persons, he had little doubt the bridge would still have been standing, but it was faulty in its original construction. There was no continuity in the bows, and no arrangement for keeping the bows perfectly straight, on which its stability mainly depended, although the proprietors thought it necessary before the bridge was placed on the abutments to make some additions. Through defects in the construction the iron tie-rods had to bear a strain nearly double what the officers of the Board of Trade usually allow in structures for railway purposes. He thought it likely that this bridge would have stood the pressure of 300 people when it was opened, assuming the bows were perfectly straight. He believed the accident was entirely due to the breaking of the bows, and the failure to keep a crowd of persons from rushing on to the bridge. The alterations made were not improvements, and the wire guy-ropes were misplaced. The inquest was adjourned.

Carlisle Fever Hospital Competition.—The design submitted under the motto "Nightingale" has been accepted in the open competition for this building. The authors are Messrs. Fred. W. Roper, of Adam-street, Adelphi, and James Murshie, of Carlisle and Barrow, joint architects.

Westgate-on-Sea,—says the *Investors' Guardian*,—is the Belgravia and Tyburnia of the Isle of Thanet. A gentle walk or short railway ride will bring you into the animation, the bustle, and the amusements of Ramsgate and Margate, and though so near all the attractions of the sister towns, you can yet secure the opportunity of enjoying the *dolce far niente*, the cheerful repose, which next to heaven and a wedding-day may be presumed to be the *summum bonum* of happiness. Westgate-on-Sea has its comfortable lodgings, at reasonable prices, its accommodating tradesmen, its bathing-machines, a most delightful and well-administered hotel, and all other advantages essential to a thoroughly enjoyable watering-place. The houses are newly-built, handsome, and convenient; and the greatest care has been exercised to secure by the water supply and drainage complete efficiency in these most important of sanitary arrangements. Moreover, the walks around the place will be found exceedingly agreeable and healthful."

Defective Ventilation in a Government Factory.—A Devonport jury, after a two days' sitting, returned a verdict of "Accidental poisoning," in the case of an ironfounder in the Government employ at Keyham Factory, Devonport. It was shown that deceased, without orders, went into a house where moulds are dried, and was there found dead. The medical evidence proved that death resulted from poisoning by noxious gases, and some of the jury, who had evidently been in Admiralty employ, elicited from a witness that the ventilation of the whole factory was lamentably defective, and that strong complaint had been made, as yet with no result. The jury requested the coroner to impress upon the Admiralty the need of at once improving the ventilation of the factory, which was dangerous to the health of the operatives, and injurious to the public service.

A Foreign Competition.—At the last meeting of the Institute, Mr. Fred. P. Cockerell, stated that he had received an official communication from the Privy Council Office, transmitting particulars of a competition invited by the Dutch Government for a new University Building at Leiden. The sum proposed to be spent on the building is 1,000,000 florins (about 90,000*l.*). The style of architecture is left to the discretion of competitors. The author of the selected design will be employed to carry out the work, or be awarded a premium of 5,000 florins (440*l.*). The second premium is 220*l.* Designs must be sent in on or before the 1st of October.

New Parade at St. Leonards.—The construction of the sea-wall and parade at West Marina, St. Leonards-on-Sea, is making very satisfactory progress. The laying of the massive blocks of concrete, which form the foundation of the wall, having been completed on Saturday last, the Rev. J. A. Hatchard provided the men with a substantial supper, at the coach-house in the rear of 107, Marina. When completed, the new wall and parade, which is nearly 2,000 ft. in length, will prove a great public improvement to the western part of Hastings.

Buildings adjoining Albert Hall.—In the House of Commons Mr. Baillie Cochrane asked the Chancellor of the Exchequer whether it was true, as stated in the papers, that the Commissioners of the Exhibition of 1851 had sold ground on which it was proposed to erect a building so lofty that it would greatly injure the effect of the Albert Memorial. The Chancellor of the Exchequer said the Commissioners of 1851 would not allow buildings to be erected so as to obscure the view of the Albert Monument.

Admission to the Institute Library.—The Council have made arrangements for admitting to the Institute Library, under new regulations, architectural students of the Royal Academy, University College, and King's College, as well as Members of the Architectural Association. Cards of admission have been prepared, which may be had on application, in accordance with a form to be previously obtained from the librarian, and on payment of a nominal fee.

The Sunday Shakspeare Society.—By permission of his Grace the Duke of Westminster, the members of this society visited "Cliveden" on Sunday last, and during the afternoon read Shakspeare's "Tempest." After tea the party returned to town, highly gratified with the privilege which had been accorded to them of spending a day amidst the delightful scenery which surrounds this mansion.

Work at St. Bartholomew's Hospital.—A meeting of this hospital was held last week, for the purpose of considering, among other matters, the rebuilding of the medical school, adjoining the hospital at Smithfield. It is intended to reconstruct the theatre, museum, and library, and as the hospital has a larger number of students on its rolls than any other in the kingdom, to provide, at the same time, accommodation for their education and instruction. The proposal will involve an expenditure of nearly 50,000*l.* The governors gave their unanimous consent to the proposal. Mr. I'Anson is the architect.

Fire at a Builder's.—A fire occurred last week at the Albert Works, Albert Embankment, belonging to Mr. B. E. Nightingale, builder. Captain Shaw states that a building of one and two floors, about 45 ft. by 25 ft. (used as engine and boiler-house, drying-room, and workshops), was nearly burnt out and roof off; some stock in the open yard and the roof of the workshops adjoining were damaged by fire, and the contents in the office, dwelling, and stores by removal.

TENDERS.

For Baptist chapel and schools, Smethwick. Mr. Thos. Hewett, architect. Quantities by Mr. J. S. Davis:—

	Chapel and Schools.	Chapel only.
Wilson	£6,602	£5,159
Webb	6,948	5,148
Harley	6,616	4,940
Marfell	6,488	4,649
Nelson	6 204	4,479
Lovatt	6,095	4,5 0
Robinson	5,800	4,287
Sapcoate & Son	5,520	4,113
Cluise & Birchill	5,300	—

For the enlargement of the present boys' schools, and the additions of class-rooms; also the erection of new schools for girls, with senior class-rooms, for the Camberwell-green Congregational Chapel Sunday School Extension Committee. Mr. W. Howard, architect. Quantities by Mr. W. F. Meakin:—

	Kentish Rag and Bath stone dressings.	Less if side and back of boys' schools are faced with stocks.
Hobson	£3,487 0 0	£78 0 0
Newman & Mann	3,423 0 0	220 0 0
Dove, Brothers	3,230 0 0	75 0 0
Colls & Sons	3,172 0 0	75 0
Hill, Higgs, & Hill	3,097 0 0	50 0 0
Thompson*	2,960 0 0	100 0 0

* Accepted.

For the erection of a malting, &c., for Messrs. Stretton, Brothers, Derby. Mr. Geo. Seamell, architect. Quantities by Messrs. Curtis & Son:—

Builder's Work.

Woods	£6,000 0 0
Dakin	5,207 0 0
Garlick	5,175 0 0
Lovatt (accepted)	5,014 0 0

Ironwork.

Thornewill & Warham	£235 0 0
Atlas Ironworks	219 10 0
Abells	211 14 0
Stacey, Davis, & Co. (accepted)	211 0 0
Williams	210 0 0

For two warehouses, Jewin-street. Messrs. Ford & Hesketh, architects:—

Scrivener & White	£6,402 0 0
Downs & Co.	6,390 0 0
Browne & Robinson	6,354 0 0
Brass	6,129 0 0
Boyce	6,029 0 0
Lawrence	5,824 0 0
Peto, Brothers	5,769 0 0
Shaw	5,755 0 0
Newman & Mann	5,708 0 0
Crabb	5,693 0 0
Perry & Co.	5,557 0 0
Mark (accepted)	5,378 0 0

For repairs and decorative works to be done for Mr. W. C. Birch, at 13, Vanbrugh Park, Blackheath. Mr. W. Coate, architect:—

Hockley & Co.	£502 0 0
Pitman & Cuthbertson	475 0 0
Adams & Son (accepted)	445 0 0

For pipe-laying for the Hungerford Gas Company:—Chandler & Sons (accepted).

For iron roof, &c., for the Leatherhead Gas Company:—Chandler & Sons (accepted).

For St. George's sewers. Messrs. G. C. Ashmead & Son, engineers:—

Britton	£8,991 5 0
Bennett	6,547 15 8
Brook & Bruce	5,3 8 8 7
Haynes	4,997 15 0
Krauss (accepted)	4,800 5 8
Neave & Son	4,894 8 6

For alterations to the Anerley Railway Hotel, and two shops adjoining. Messrs. Bird & Walters, architects:—

Downs	£2,755 0 0
Nightingale	2,740 0 0
McLachlan	2,684 0 0
Smith	2,514 0 0
Taylor	2,437 0 0

For new sewers, West End, Hampstead, for vestry of St. John, Hampstead. Mr. C. H. Lowe, surveyor:—

Pearson	£2,375	0	0
Mowlem & Co.	2,300	0	0
Culverhouse	2,155	0	0
Crockett	2,085	0	0
Meston	2,040	0	0
A. & F. Culverhouse	2,019	0	0
Watts	2,007	10	8
Killingback	1,967	0	0
Nowell & Robson	1,899	0	0

For new livery hall, &c., for the Worshipful Company of Leathersellers. Mr. G. Andrew Wilson (surveyor to the company), architect. Quantities supplied by Mr. Thos. Nixon:—

Downs & Co.	£19,300	0	0
Kilby	18,859	0	0
Higgs & Hill	18,480	0	0
Browne & Robinson	18,430	0	0
Brass	17,986	0	0
Bangs & Co.	17,956	0	0
Ashby, Brothers	17,694	0	0
Ashby & Horner (accepted)	16,900	0	0

For rebuilding No. 55, Gracechurch-street, City. Mr. W. S. R. Payne, architect. Quantities by Mr. R. Morfee:—

Outhwaite & Son	£4,160	0	0
Ashby, Brothers	4,126	0	0
Conder	4,082	0	0
Lawrance	3,992	0	0
Colls & Sons	3,967	0	0
Lathey, Brothers (accepted)	3,925	0	0

For rebuilding No. 24, Haymarket, for Mr. G. M. Hughes. Messrs. J. & W. Wimble, architects:—

Ashby & Horner	£8,315	0	0
McLachlan	8,280	0	0
Scrivener & White	8,197	0	0
Brass	8,034	0	0
Croaker	8,010	0	0
Falkner	7,597	0	0
Dove	7,575	0	0
Newman & Mann	7,333	0	0

For rebuilding No. 41, Cheapside, for the Investment Company, Limited. Messrs. J. & W. Wimble, architects:—

Fish	£9,970	0	0
Croaker	8,722	0	0
Lawrance	8,715	0	0
Newman & Mann	8,630	0	0
Ashby & Horner	8,432	0	0
Dove	8,370	0	0
Scrivener	8,233	0	0
Brass	8,046	0	0

For new schools and teacher's house, Fillongley, near Coventry. Mr. John Cotton, architect. Quantities supplied:—

Matthews	£2,100	0	0
Thomas & Baxter	2,075	0	0
Marriott	2,015	0	0
Nelson	1,994	0	0
Nightingale & Downes'	1,826	0	0

* Accepted.

For farm buildings at Helpridge Farm, Wychbold, Bromsgrove, for Mr. John Blick. Mr. John Cotton, architect:—

Brazier & Weaver	£397	0	0
Harris & Cook	371	0	0
Bourne	370	0	0
Stokes (accepted)	349	0	0

For additions to Christ Church, Great Warley, Essex. Mr. John Young, architect. Quantities supplied by Mr. Sidney Young:—

Jacobs	£1,563	0	0
Everett & Son	1,495	0	0
Gregory	1,449	0	0
Cross	1,390	0	0
J. S. Hammond	1,370	0	0
J. Hammond	1,358	0	0

For additions to Church of All Saint's, Hockerill, near Bishop's Stortford. Mr. J. Clarke, architect. Quantities supplied by Mr. Sidney Young:—

Hill & Higgs	£6,969	0	0
Dove, Brothers	6,900	0	0
Roberts, Brothers	6,667	0	0
Bell & Sons	6,356	0	0
Gibbons	6,290	0	0
Parmenter	6,209	0	0
Glasscock	6,180	0	0
Gregory	6,145	0	0

For additions to schools at Friern Barnet, for the Rev. R. Morris. Messrs. E. Habershon & Brock, architects:—

Woodhall (accepted)	£555	0	0

For Saint Bartholomew's Church, Charlton in Dover. Mr. J. Clarke, architect. Quantities supplied by Mr. Sidney Young:—

Stiff	£7,255	0	0
Naylor	6,982	0	0
Humphreys	6,071	0	0
Dove, Brothers	6,040	0	0
Gregory	6,929	0	0
Roberts, Brothers	6,798	0	0
Gasken	6,766	0	0
Borne	6,662	0	0
Dunne	6,586	0	0
Wilson	6,450	0	0
Adcock	6,730	0	0

For four cottages at Leatherhead, Surrey, for Mr. W. Edwards. Mr. Dibble, architect:—

Heselgrave	£1,155	0	0
Batchelar	1,025	0	0
Walker	880	0	0
Edsar (accepted)	870	0	0

For additions o North Holmwood Schools, Dorking, Surrey. Mr. Dibble, architect:—

Heselgrave	£410	0	0
English	366	0	0
Pierce	313	0	0
Pledge	298	19	
Edsar (accepted)	280	0	0

For chaise-house, stable, & small conservatory, on the Holloway Estate, Dorking, for Mr. A. Chabot. Mr. Dibble, architect:—

Hamblin, Brothers	£540	0	0
Edsar	450	0	0
Heselgrave (accepted)	435	10	0

For a new branch bank at Croydon, for the London & South-Western Bank, Limited. Messrs. J. J. & S. Edmeston, architects. Quantities by C. N. McIntyre North:—

Philipson	£6,079	0	0
Hyde	5,998	0	0
Cowland	5,981	0	0
Nye	5,960	0	0
Marriage	5,910	0	0
Coles	5,834	0	0
Williams	5,802	0	0
Lege	5,675	0	0
Adamson	5,569	0	0
Taylor	5,475	0	0
Clarke & Bracey	5,397	0	0
Jarrett	5,330	0	0
Smith (accepted)	5,276	0	0

For temporary church, Orange-street, Southwark, for the Rev. G. W. Berkeley. Mr. C. N. McIntyre North, architect:—

Greenwood & Sons	£231	0	0
Richardson, Brothers	770	0	0
Baguley	596	0	0

For repairs to United Methodist Free Church, Willow-street, Finsbury, for the trustees. Mr. C. N. McIntyre North, architect:—

Pitman & Cuthbertson	£137	0	0
Allen & Son	135	0	0
White	125	0	0

Asphalte Paving.—The tender of the Brunswick Rock Asphalte Company has been accepted to pave the whole of the playgrounds in front of St. Luke's Hall, Kenton-street, Hackney.

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